



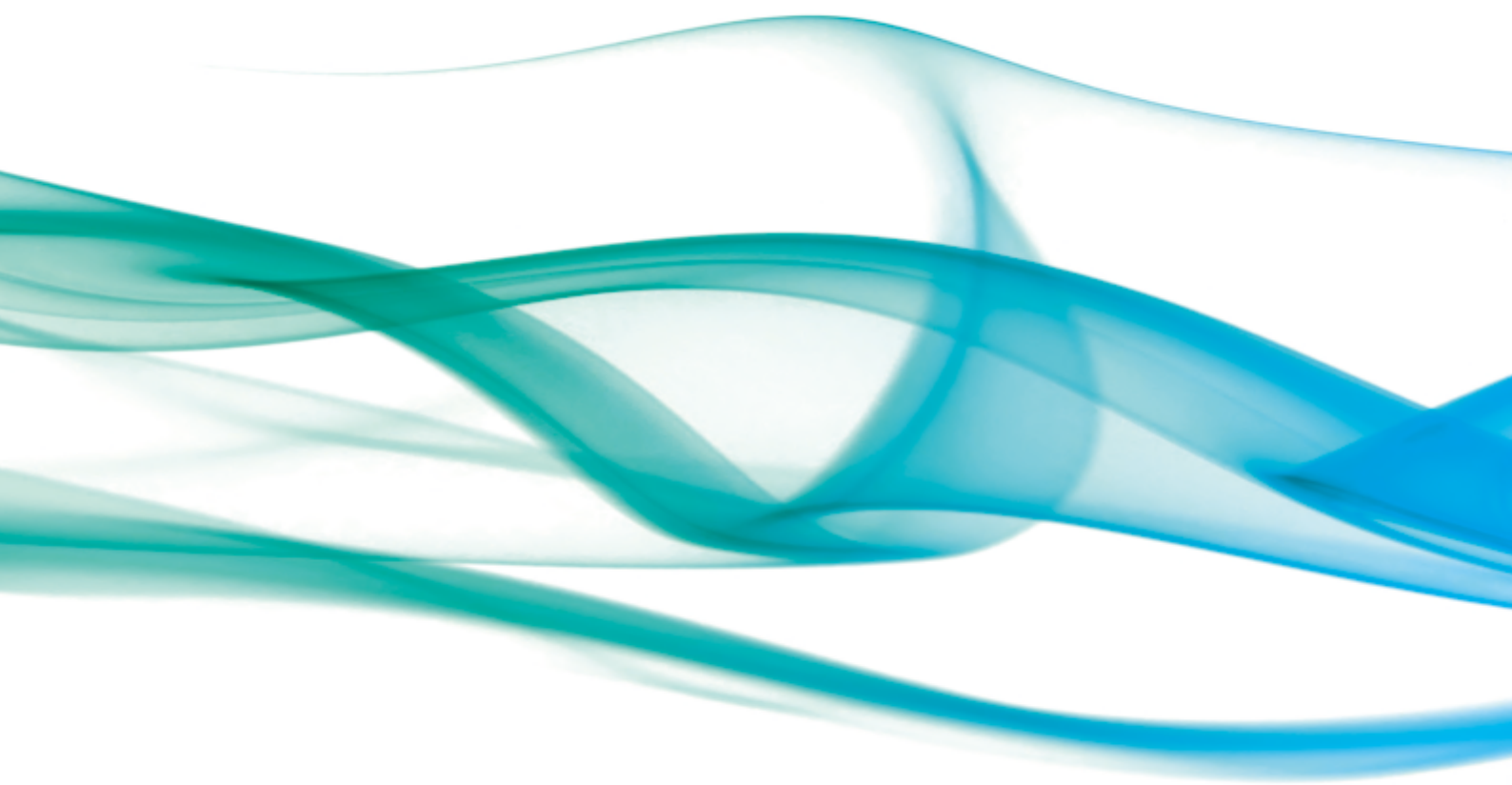
華電國際電力股份有限公司

HUADIAN POWER INTERNATIONAL CORPORATION LIMITED

Stock Code : 1071

Environmental, Social and
Governance Report 2016





Contents

About this Report	2
Message from the General Manager	3
About Us	4
Compliance Operation	8
Responsibility Management	9
Theme: Actively participate in power reform in response to the industry trend	11
1. Creating Value for Stable and Reliable Power Supply	13
1.1 Stabilizing electric power and heat power	13
1.2 Innovation-driven development	15
1.3 Advancing cooperation and win-win development	18
2. Responsibility-based operation to guarantee safety	19
2.1 Safety management	19
2.2 Safe operation	22
3 Green Electricity and Environmental Protection	24
3.1 Green operation	24
3.2 Resources and energy saving	26
3.3 Ecological environment protection	27
4 People First and Common Growth	29
4.1 Attracting diversified talents	29
4.2 Building learning platforms	30
4.3 Caring for employees	31
5 Keeping the Faith and Contribution to Society	32
5.1 Targeted poverty alleviation	32
5.2 Giving back to society	32
Future Prospects	35

About this Report

This report is applicable to Huadian Power International Corporation Limited and its subsidiaries (Hereinafter referred to as “the Company” or “Huadian Power International”).

Reporting Period

This report covers a period from January 1, 2016 to December 31, 2016, and part of this report is beyond this reporting period, as the case may be.

Preparation Principle

This report is prepared pursuant to the *Environmental, Social and Governance Reporting Guide* (hereinafter referred to as “ESG Guide”) and with reference to *Sustainability Reporting Guidelines* (G4) by Global Reporting Initiative (GRI).

Data Description

All data are based on the Company’s formal documents and statistical reports. In this report, the currency amount is accounted by RMB, unless otherwise specified.

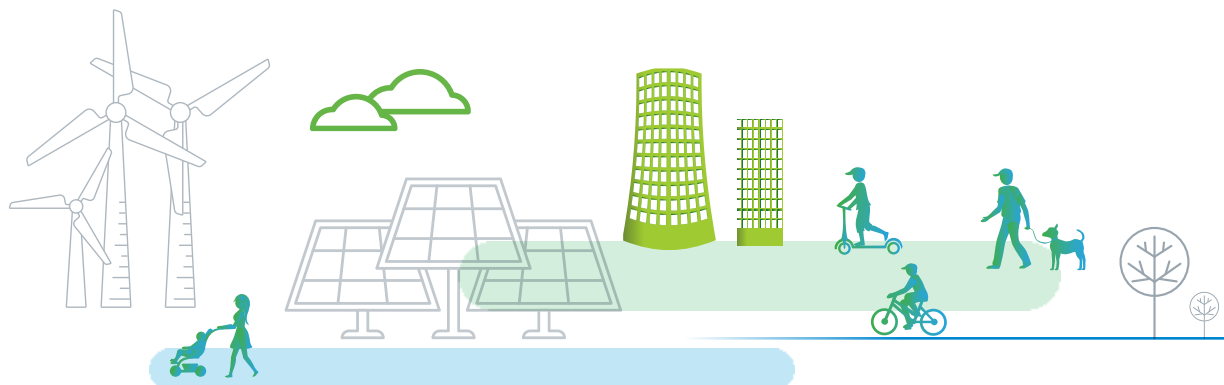
Form of Release

The Chinese and English versions of this report in PDF format are publicly available on the Company’s official website www.hdpi.com.cn.

This report is published in both Chinese and English. In case of any discrepancies among the different versions, the Chinese version shall prevail.

Contact

Security Financing Department of Huadian Power International Corporation Limited
Address: No. 2 Xuanwumennei Street, Xicheng District, Beijing, the PRC Zip Code: 100031
Tel: 8610-8356 7888
Fax: 8610-8356 7963
Email : hdpi@hdpi.com.cn



Message from the Management



The year of 2016 witnessed sharp rise in coal price, continuous decrease of utilization hours, increasingly fierce market competition and heavier environmental constraints. In spite of this, Huadian Power, led by the development ideas of “Innovation, Coordination, Greenness, Opening-up and Sharing”, actively adapts to the new normal of economic development, facilitates the in-depth implementation of various decisions and arrangements made by shareholders’ meeting and the board of directors, takes active actions to tackle difficulties. In advancing the process of sustainable development, Huadian Power International has always incorporating its social responsibility into its business strategies and production practice, makes constant efforts to improve management capacity and value creation ability, comprehensively advance clean and green development, takes initiative to undertake environmental and social responsibility, getting off to a good start of the “13th Five-year Plan” period.

We focus on power industry reform and ensure to meet the people’s livelihood needs. We take a positive response to industry power reform, make planning layout in a scientific way, and give full play to the advantage of regional marketing integration, achieving outstanding marketing performance; we devote ourselves to meeting the needs of the people’s livelihood, and enable stable power supply and efficient heat supply through scientific optimization of structure and innovation-driven development, with the generating capacity up to 190.064 million MWh and the heat supply up to 76.0551 million GJ, for the purpose of providing guarantee to national happiness.

We reinforce duty fulfillment and consolidate security foundation. We make solid progress in promoting “Double Governance”, carry out the management requirements of “Four No Admission”, and make in-depth analysis to identify hidden dangers to accelerate the building of safety management and operation systems; we adopt 7S management model, make greater efforts to control the safety of outsourcing projects, and tighten control over “abnormal shutdown” to eliminate safety risks and effectively enhance safety assurance, cost control and sustainable development capacity, for the purpose of protecting the healthy and stable development.

We pay attention to green production and keep in mind environmental protection responsibilities. We earnestly implement national environmental policies, adopt advanced technologies to improve environmental performance, actively promote energy conservation, focus on intensive use of resources, constantly improve the monitoring platform, strengthen real-time monitoring and intensify technical reform control. Our installed capacity of clean energy is 9,472.2MW, and we have completed reforms of ultra-low emission on 68 sets, totally up to 26,925MW. We also fulfilled our environmental protection responsibilities in each link of production, for the purpose of achieving low-carbon, recycling and green development in an effective way.

We care about staff development and inspire talent vitality. Currently the Company has 28,243 employees on the job. We continue to strengthen human resources management and do a good job of optimizing human resources allocation. We carry out talent training through “great talents”, “competition-driven training” and other systems, perfect “three-in-one” comprehensive cadre evaluation system, expand career development channels, give full play to the incentive role of salary distribution, push the construction of staff culture, and promote the balance of staff’s work and life, for the purpose of reserving excellent talents for future development.

We practice the core value and push forward the harmonious construction. We put equal emphasis on development and contribution, play our own advantages, actively support the charity of public welfare, continue to conduct “Huadian Power • Happiness Action”, assume corporate citizenship duty in real earnest, and do good for people, for the purpose of making enterprise development results to benefit more social groups.

We have made fruits with diligence and courage, and we will embark on a new journey under favorable situations. In 2017, Huadian Power International will continue to, under the leadership of shareholders and the board of directors, have the courage to assume important missions, tackle difficulties head on and forge ahead with determination, making great efforts to win the tough battle of improving product quality and production efficiency!

Vice Chairman, Executive Director: Chen Bin

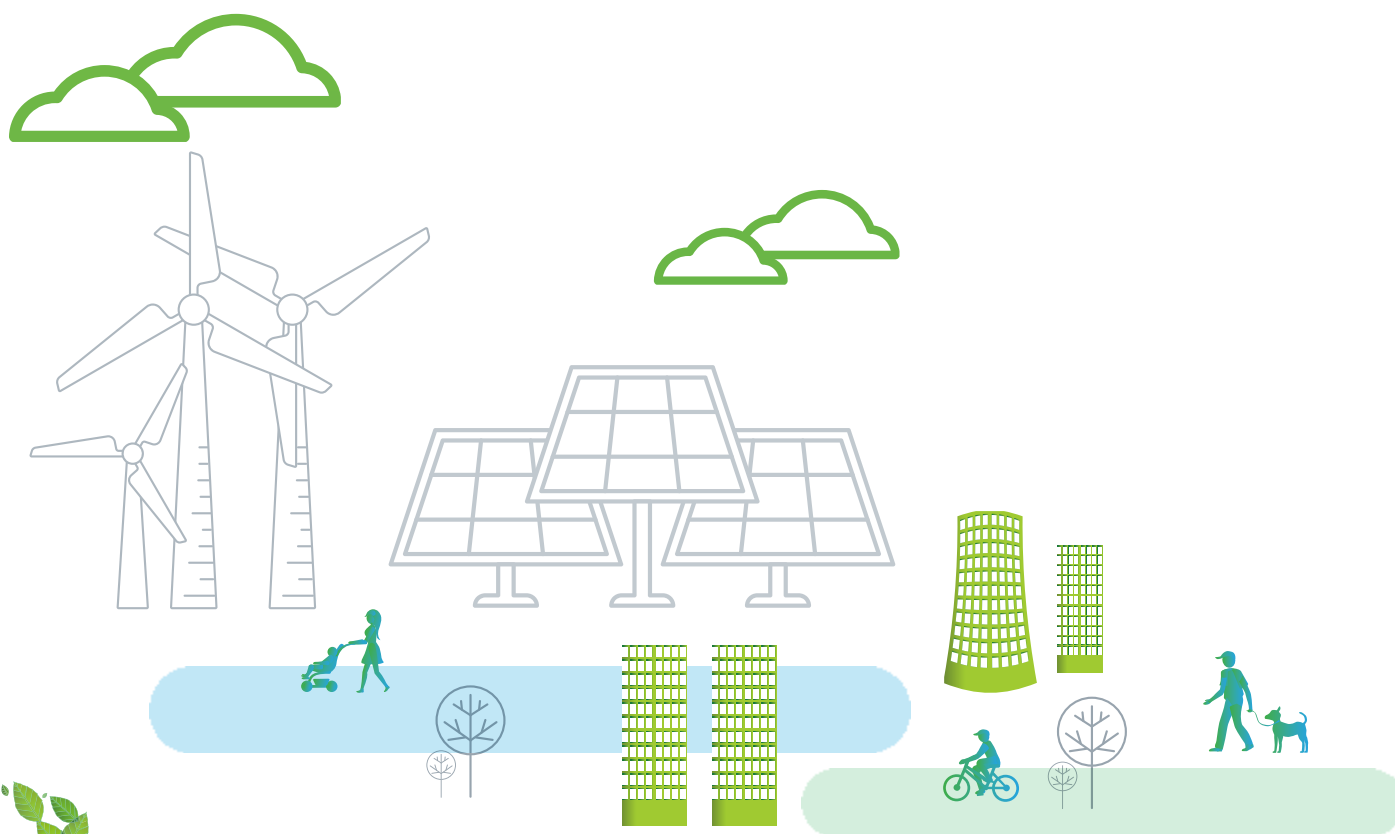


About Us

Company Profile

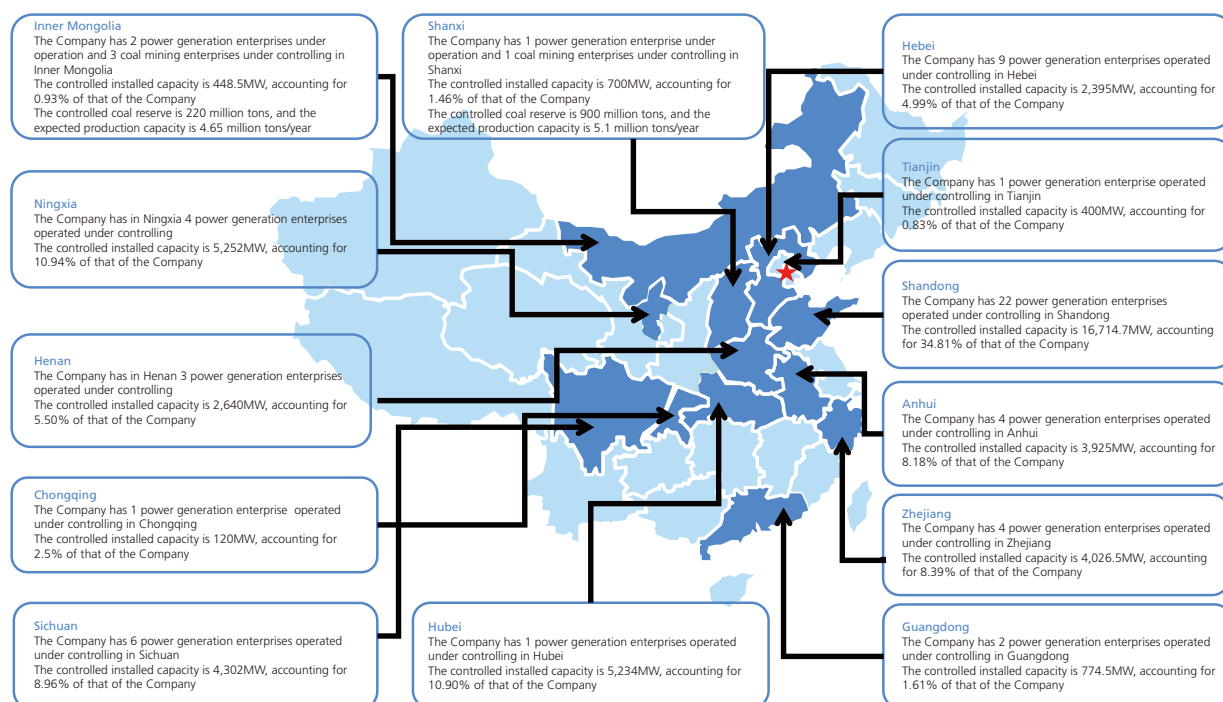
Huadian Power International Cooperation Limited is a company specializing in power generation, which was registered in Jinan City, Shandong Province and founded on June 28, 1994 jointly by State Grid Shandong Electric Power Company, Shandong International Trust Co., Ltd., China Power Trust and Investment Co., Ltd., Shandong Luneng Development Corporation, and Zaozhuang Infrastructure Investment Co., Ltd. On June 30, 1999, the Company launched an initial public offering about 1.431 billion H shares and was listed on Hong Kong Stock Exchange. The Company issued 765 million A shares in within the territory of China on February 3, 2005 and was listed on Shanghai Stock Exchange. After years of development, the Company has become one of the largest integrated energy providers in China. As of the end of 2016, the Company has 9.863 billion shares in total, among which, 4.534 billion A shares and 85.86 million H shares were held by China Huadian Corporation (hereinafter referred to as "China Huadian"), accounting for 46.84% of the Company's equity, and the shares of other A-share shareholders and H-share shareholders accounted for respectively 36.62% and 16.54% of the Company's equity.

The Company mainly engages in constructing and operating power generation plants and power generation-related industries, as well as providing power-related technical services and consultations. Over the years, the Company has always adhered to the scientific outlook on development, highlighted value-based thinking idea, upheld the operation philosophy of "pursuit of the coordination of shareholder value, social responsibility and employee interests to provide the public with safe, clean, reliable and low-cost electricity", taken "energy giant, industry vanguard and international fist class" as the vision and company strategies as the guide to speed up structural adjustment, make persistent efforts in seizing development opportunities, improving efficiency, reinforcing management and leading working teams. With the building up of its overall strength, the Company expands its business area from Shandong Province to another 13 provinces (municipals) such as Sichuan, Ningxia, Anhui, Henan, Hebei, Zhejiang, Tianjin, Inner Mongolia, Shanxi, Guangdong, Chongqing and Hubei; and enlarges its business scope from thermal power generation to hydropower generation, wind power generation, biomass power generation, solar power generation, gas turbine power generation, nuclear power generation and coal industry. As of the end of 2016, the installed capacity of power generation enterprises under its controlling reached 48,012.2MW, of which 42,966.5MW were generated by coal and gas power generating units and 5,045.7MW by hydropower, wind power, biomass power, solar power and other renewable energies.



About Us (Continued)

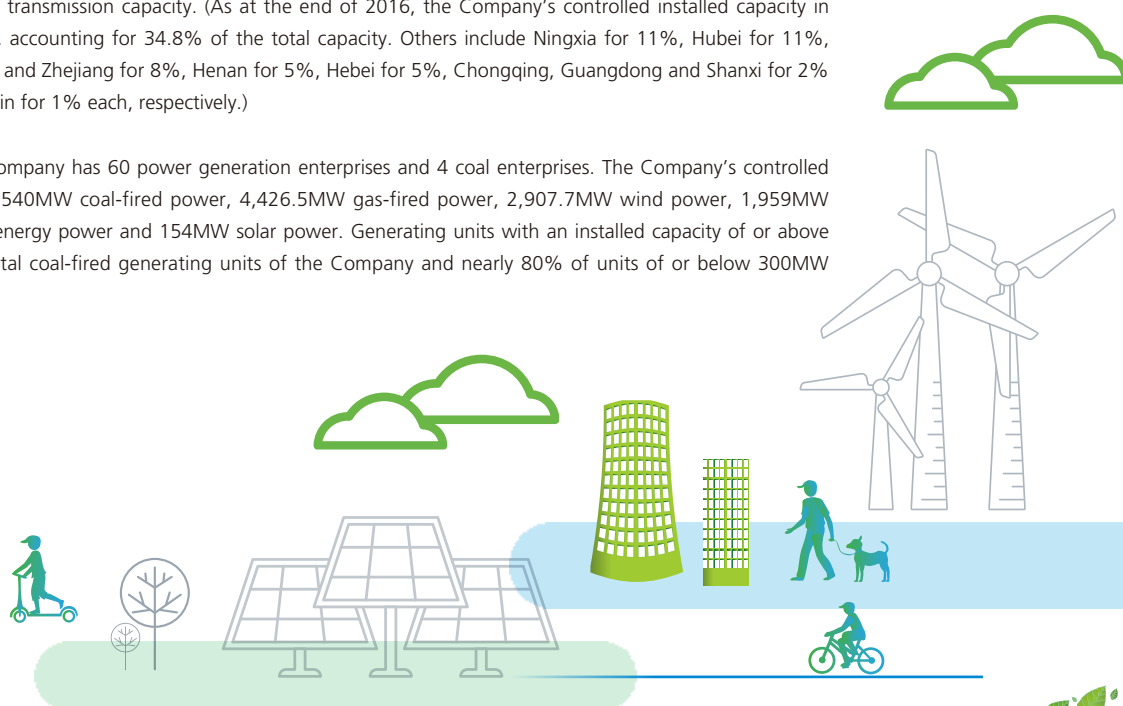
Industrial Distribution



Now let's take a glance at business presence:

The Company runs business mainly in 14 provinces, autonomous regions and municipalities, including coastal areas like Shandong, Hubei, Anhui, Zhejiang, Hebei, Guangdong and Tianjin with developed economy, strong electricity demand and higher affordability of electricity tariffs as well as inland areas like Ningxia, Sichuan, Inner Mongolia and Shanxi with abundant resources and strong outward transmission capacity. (As at the end of 2016, the Company's controlled installed capacity in Shandong was 16,714.7MW, accounting for 34.8% of the total capacity. Others include Ningxia for 11%, Hubei for 11%, Sichuan for 9%, Anhui for 8% and Zhejiang for 8%, Henan for 5%, Hebei for 5%, Chongqing, Guangdong and Shanxi for 2% each, Inner Mongolia and Tianjin for 1% each, respectively.)

As at the end of 2016, The Company has 60 power generation enterprises and 4 coal enterprises. The Company's controlled installed capacity includes 38,540MW coal-fired power, 4,426.5MW gas-fired power, 2,907.7MW wind power, 1,959MW hydropower, 25MW biomass energy power and 154MW solar power. Generating units with an installed capacity of or above 600MW exceed half of the total coal-fired generating units of the Company and nearly 80% of units of or below 300MW achieved cogeneration.



Development History

1994

On June 30, Shandong International Power Development Co., Ltd., the precursor of the Company, was registered and officially founded

2002

On November 21, the Company bought 20% of the shares of Ningxia Zhongning Power Generation Company, which marked its official entry into the market of the Ningxia Hui Autonomous Region and its first step to develop into a nationwide power generation company from a regional one

2004

On December 28, Huadian Qingdong Corporation, the first heating power one in the Company, was officially registered and founded

2006

On December 4, the initial batch of domestic supercritical units with each capacity of 1,000MW was put into production in Huadian Zouxian Power Company, which became the national "863" science and technology key project, the imported and domesticated support construction project, and the 2005 national annual key construction project. These units set a new record among the national same-type units with regards to the security status, construction speed, engineering quality, debug time, commissioning index, and energy conservation and environmental protection. The total installed capacity of the Company amounted to 10,000MW

1999

On June 30, the Company issued the H stock and got listed in The Stock Exchanges of Hong Kong Limited

2003

On April 1, China Huadian became the Company's controlling shareholder

On May 9, the Company acquired 80% of the stock rights of Sichuan Guang'an Power Limited Liability Company, officially entering into Sichuan market

On August 28, Huadian Xinxiang Power Company was registered and founded, marking the Company's entry into Henan's market. During Phase 1, two supercritical coal-fired generating units with each capacity of 660MW were constructed

On November 1, Shandong International Power Development Co., Ltd. was renamed Huadian International Power Co., Ltd.

On November 18, Anhui Chizhou Jiuhe Power Generation Company with the narrowly controlling shares officially began the construction of two coal-fired generating units with each capacity of 200MW in Phase 1, marking the Company's entry into Anhui's market

2005

On February 3, the Company's A share, the first stock issued to the public for price inquiry in China, was officially listed in Shanghai Stock Exchange

2007

The "Tens of Millions of kW" project was carried out. This year, the installed capacity of 6,095 MW was realized and the Company's total installed capacity amounted to 20,000MW

In December, the wind power project of 45MW for Phase 1 was put into production in Ningxia Ningdong, the first wind power project of the Company, which marked the rapid development of the Company's wind power industry

2008

- The Company acquired 82% of the stock rights of Hebei Shijiazhuang Thermoelectricity Company formerly possessed by China Huadian, 100% of the stock rights of Hebei Huadian Hybrid Storage Hydropower Company, 64% of the stock rights of Hangzhou Huadian Banshan Power Company, and 49% the stock rights of Sichuan Huadian Zagunao Hydropower Development Company, marking the Company's expansion to Hebei and Zhejiang and new breakthroughs in hydropower project and gas turbine project

On August 1 and December 7, two biomass power generation units with each capacity of 12.5MW were officially put into production in Anhui Huadian Suzhou Biomass Energy Company for Phase 1, the Company's first comprehensive resources utilization project that utterly burns the agricultural straw

2010

- On April 20, the grid-connected PV power generation of 10MW was conducted in Ningxia Ningdong Shangde Solar Energy Company for Phase 1, making the Company the first to put solar power generation into production among the five top power groups
- On May 21, the Company acquired the stock rights of Guangdong Shaoguan Pingshi Power Company (Factory B), marking its expansion to Guangdong

2012

- In September, the first generating unit with the capacity of 415MW for Phase 2 of the combustion engine in Hangzhou Huadian Banshan Power Company was handed over for production, the Company's first independently-constructed combustion engine project

2014

- In September and November, two combustion engine-steam combined cycle heating units with each capacity of 200MW of Tianjin Huadian Fuyuan Thermoelectricity Company were officially put into commercial operation, the Company's first power project operated in Tianjin

2015

- In July, the Company successfully acquired 82.56% of the stock rights of Huadian Hubei Power Company formerly possessed by China Huadian, making the Company's installed capacity increase by 5,120MW to 40,000MW and marking the Company's expansion to Hubei

2009

- On April 14, the Company acquired Shanxi Dongyi coal mine and Wangtongyuan Erpu coal mine, marking the Company's expansion to Shanxi and initial entry to the field of coal

2011

- Units 3 and 4 of Sichuan Huadian Luding Hydropower Company, the Company's first independently-constructed hydropower project, smoothly went through its first 72-hour operation
- The installed capacity of 1,949.5MW was put into production, indicating that the Company's installed capacity amounted to 30,000MW

2013

- On April 16, the Company held the launch ceremony of the technical service center, marking its expansion into the field of power technical service and consulting
- On September 10, the distributed energy sources project of Shenzhen Huadian Pingshan was approved, the first distributed energy sources project to be approved in Shenzhen, marking the Company's new breakthrough from the original zero in Shenzhen's energy market

2016

- On November 24, Huadian Guangdong Energy Marketing Company, the first power marketing company solely invested by the Company, was officially registered and founded, marking the Company's business expansion to power marketing side
- The Company's Chongqing Fengjie Power Plant put two supercritical condensing coal-fired generating units with capacity of 600MW into production for Phase, the Company's first supercritical "W-type" flame furnace project in progress that can meet the ultralow emission standard, marking the Company's breakthrough from the original zero in Chongqing



Compliance Operation

Huadian Power International lays stress on long-term development and is always prepared for danger in times of safety by taking effective measures to control risks while maintaining high-speed growth. It constantly strengthens corporate governance, strives to be transparent and uncorrupt, and strictly abides by standards, rules, regulations and laws, which are conducive for it to maximize value and expand value-added space.

Corporate Governance

The Company has always attached great importance to continuously foster management innovation and been committed to make corporate management structure better and governance level higher in strict accordance with Company Law of the People's Republic of China, Securities Law of the People's Republic of China, Rules Governing the Listing of Stocks on Shanghai Stock Exchange, Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited, as well as relevant provisions of domestic and foreign securities regulatory agencies, for the purpose of balancing corporate growth with shareholder interests.

The Company has established a relatively perfect corporate governance structure and corresponding organizational systems, and clearly defined and divided the authorities of the General Assembly, the board of directors and the board of supervisors. The board of directors consists of strategic committee, audit committee, remuneration and appraisal committee, and nomination committee.

The Company has set up a fundamental institutional system with the Articles of Association at the core, developed Rules of Procedure for Shareholders' General Meeting, Rules and Procedures for Meetings of the Board of Directors, Rules and Procedures for Meetings of the Board of Supervisors, Information Disclosure Management Rules and management rules for standardized operation of its subsidiaries, and made continuous efforts to improve the corporate governance system.

Anti-corruption

The Company continuously promotes the construction of anti-corruption system, carries out ongoing explorations into institutional mechanisms, management supervision, ideology and other aspects. Through in-depth reform and innovation, it lifts anti-corruption capacity in a further step for the fulfillment of the goal of governance capacity modernization, pushing its overall development into a more honesty, compliant and transparency track.

System Guarantee	Mechanism Constraint	Consciousness Enhancement
<ul style="list-style-type: none">• Perfecting relevant rules, e.g. Evaluation Grading Rules on Responsibility System of the Construction of the Anti-Corruption Administration• Continuous standardizing problem-clue management, distributing notice to enforce problem-clue management discipline, and doing a good job on the record for clues and handling situations of different regions• Smoothing Supervision Channels and strengthening work on the investigation, handling and reporting of petition cases	<ul style="list-style-type: none">• Holding working conferences on anti-corruption• Organizing symposiums on the working process of incorruption• Organizing talks with principle heads of branch companies on incorruption• Conducting research work on 5 subsidiaries including Anhui and Ningxia etc. also including 10 basic units	<ul style="list-style-type: none">• Strengthening anti-corruption trainings; publicizing and promoting relevant laws and regulations• Organizing anti-corruption focused trainings for eight times• Carrying out "anti-corruption promotion month" activities with the theme of "practice self-discipline and adhere to the discipline bottom lines"

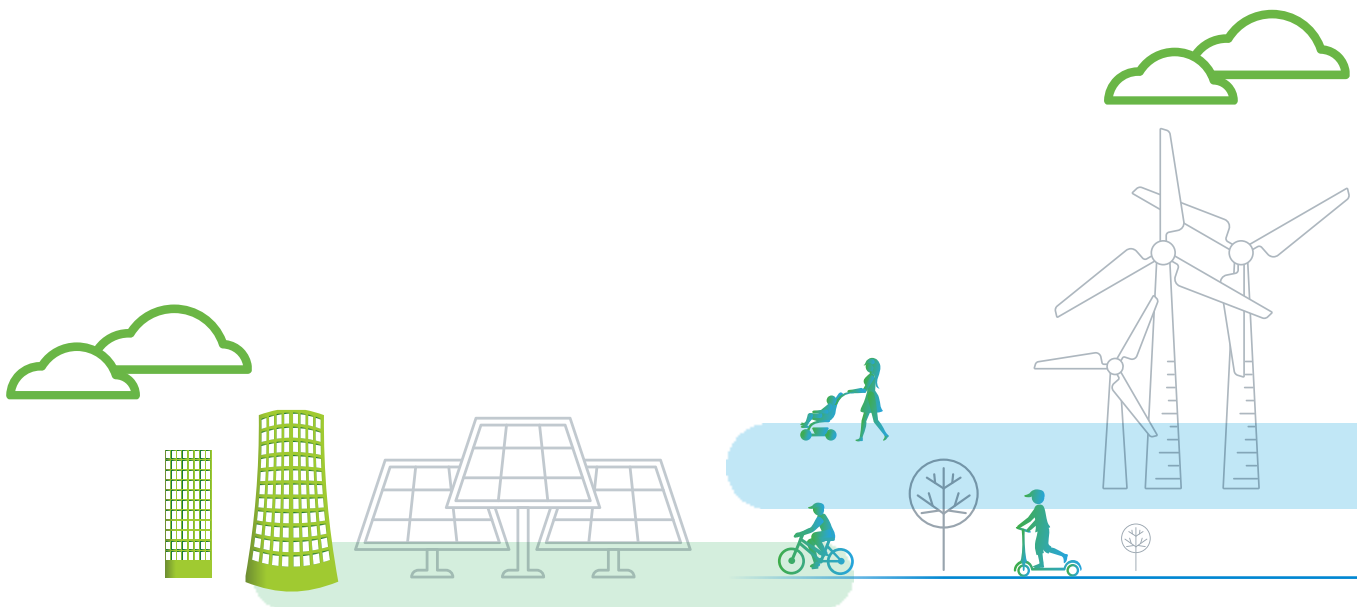
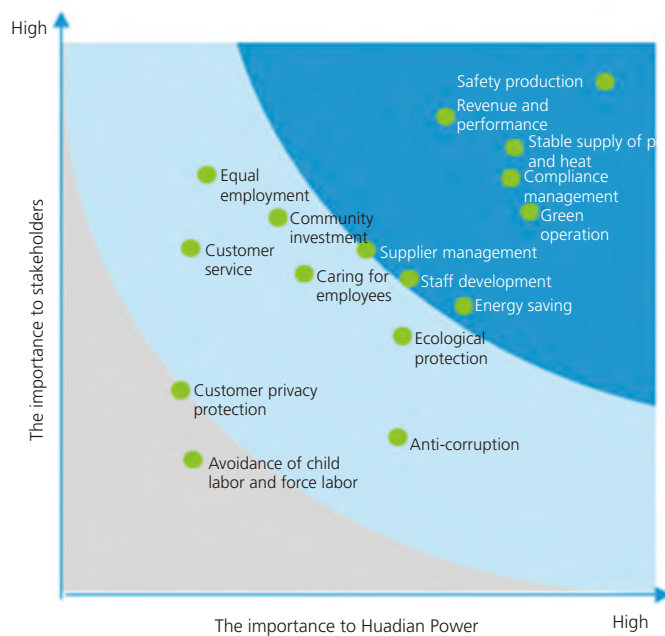


Responsibility Management

The Company actively responds to the responsibility concept of “Reliable and Caring Power Supply for the Public” advocated by China Huadian Corporation, makes efforts to promote the building of responsibility capacity, lifts the level of social responsibility management, deepens the practice of social responsibility, drives the creation of higher economic, social and environmental value, for the purpose of fulfilling harmonious development of corporate and society.

Responsibility Issue

In order to enhance the relevance and responsiveness of the report, the Company carries out screening, assessment and sorting to ensure the substantiality of disclosed issues as far as possible, based on the requirements of ESG Guides by relevant stock exchanges, with reference to Sustainability Reporting Guidelines (G4) by GRI, by means of industrial analysis, benchmarking and daily communication, and in accordance with the importance level of social responsibility issues to corporate development.



Responsibility Management (Continued)

Responsibility Communication

Huadian Power's development is inseparable from the understanding and support of many stakeholders. During the course of operation and development, the Company also attaches great importance to the extensive communications and exchanges with stakeholders. By building internal and external communication channels, such as the official website and internal magazine, the Company initiatively listens to stakeholders' expectations and aspirations, incorporates feedbacks into corporate operation decisions, and facilitates the sustainable development of businesses and the society.

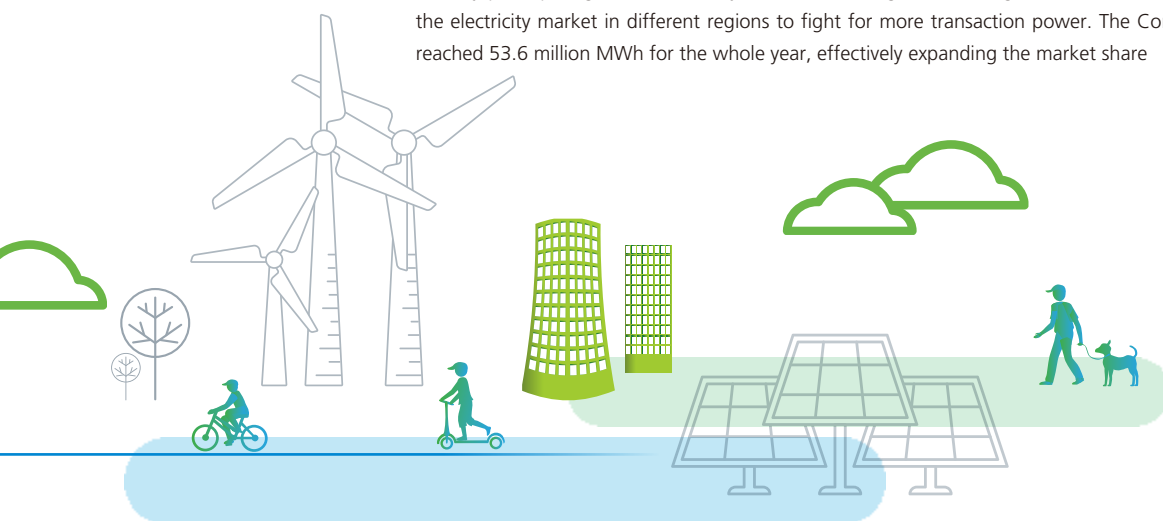
Stakeholders	Expectations and aspirations	Communication and response mode
Stockholder	A sustained and steady performance growth; regulated and honest operation; timely and accurate information disclosure; responsible investment	Regular information disclosure; holding shareholders' meetings; daily communications
Government	Safe operation; compliance; steadily growing tax; stable power and heat supply; optimizing the power generation structure; promoting the industry development	Strengthening compliance management; abiding by the law paying tax by law protecting people's livelihood; scientific and technological innovation; information submission
Environment	Compliant pollutant emissions; saving energy and resources; improving energy efficiency; ecological protection	Green operation; saving energy and resources; ecological protection; carrying out environmental welfare activities
Staff	Democratic rights; reasonable remuneration and benefits; equal employment opportunities; smooth development channels; safe and healthy working environment; care for employees	Equal and diversified recruitment; performance management and incentive mechanism; fair promotion channel; perfect training system; care for employees; carrying out employee activities; disclosing factory affairs
Customers	Providing safe and clean power; providing the power at a reasonable price	Related technical services; contract and agreement fulfillment; suggestions and feedback
Suppliers and partners	Transparent procurement; win-win cooperation; keeping to promises	Agreement and contract fulfillment; open tendering; supplier management system; communications and exchanges
Community	Safe operation; community development; harmonious community	Precision poverty alleviation; community investment; charity activities



Theme: Actively participate in power reform in response to the industry trend

In order to solve the outstanding contradictions and deep-seated problems that restrict the scientific development of the power industry and promote the structural transformation and industrial upgrading, the CPC Central Committee and State Council issued *the Opinions on Further Deepening the Reform of the Power System* (Zhong Fa [2015] No. 9), marking the official launching of a new round of power system reform and the gradual opening of the market-oriented power development curtain. Huadian Power, after an in-depth analysis of the situation, actively responds to the power system reform and scientifically plans the layout so as to realize the quality improvement and efficiency increase and set a good start of the “13th Five-Year Plan”.

- | | |
|---|--|
| Policy interpretation | <ul style="list-style-type: none"> • Introducing the supply-side reform in power industry to correct the “mismatched” supply in this industry • Reducing the electric energy into its commodity attribute and gradually building an effective and competitive market structure and market system • Establishing a new type of power management system that is green, low-carbon, energy-saving, emission-reducing, and more secure and reliable, and that can achieve the optimal allocation of comprehensive resources |
| For better development of Huadian Power | <ul style="list-style-type: none"> • Drafting the <i>Implementation Plan of Huadian Power International Integrated Marketing System Construction</i> and building the regional integrated marketing management system by integrating regional resources and making clear the responsibilities of marketing agencies at all levels in accordance with the principle of the “Four Unifications” • Based on the gradual increase of the proportion of power in the market and the basic principles of “being legal, reasonable, orderly and well-founded”, strengthening the inter-provincial and inter-regional power market transaction coordination, reinforcing the Company’s overall arrangement and control capability of the marketing work, guiding the regional companies to establish the competition decision management mechanism, and striving to improve the quality and efficiency • Strengthening the marketing talent team construction by timely carrying out the targeted training and improving the professional skill of marketing staff • Optimizing the power structure and innovating and increasing the efficiency in a bold way by resorting to such carriers and information means as 7S management, star enterprise establishment, benchmarking management, and others, so as to establish the management mechanism in which the production and management serves the market demand, to ensure the maximization of safety production and economic benefits, and improve the core competitiveness of enterprises • In accordance with the relevant requirements of promoting the business model innovation, accelerating the establishment of power marketing companies by regional companies besides the addition of power marketing business into some power generation enterprises and heating power companies subordinated to the Company • Developing the operation business that integrates the power generation, distribution, and sales, actively arranging the power distribution market, striving to increase the power distribution business in the two pilots of Anhui Hexian New Town and Henan Xinxiang Coal Chemical Circular Economy Industrial Park, and creating favorable conditions for entering the power distribution and marketing business for the next step • Actively participating in the electricity market in the region according to the differences and diversification of the electricity market in different regions to fight for more transaction power. The Company’s market power reached 53.6 million MWh for the whole year, effectively expanding the market share |



Theme: Actively participate in power reform in response to the industry trend (Continued)

Case: Establish the “integrated marketing management system” and face the “test” of the power reform

The Company	• The administration principal of the marketing work that is in responsible for coordinating the inter-provincial and inter-regional market competition and monitoring the key issues affecting the marketing index
Regional companies	• The main subjects in regional marketing and market competition that is responsible for the unified management of the regional electric heating selling business
Power generation enterprises	• The main subjects in electric heating selling plan implementation and production and operation, and the production cost control center, responsible for organizing the enterprise’s production and operation work

To actively respond to the national power system reform, improve the Company’s marketing management under new circumstances, and get adapted to the increasingly fierce competition in the electricity market, Huadian Power International promotes the establishment of the “integrated marketing management system”.

The “integrated marketing management system” is built in accordance with the principle of the “unified organization, unified coordination, unified competition, and unified balance” to establish the management platform, integrate the working resources, strengthen the marketing responsibilities of subsidiaries to endow them with the functions of the regional power sales management subjects and external market competition subjects, plan and carry out the marketing work as a whole, and ultimately achieve the maximum benefits of the Company.

We will improve the Company’s marketing management under new circumstances, get adapted to the increasingly fierce competition in the electricity market, continuously enhance the Company’s relative competitiveness, and face the historically important battle in power development in a united way.



1 Creating Value for Stable and Reliable Power Supply

2016 was the first year in the “13th Five-Year Plan” period, and witnessed the “New Normal” in development of Chinese electric power industry due to complex international environment and domestic situations. Huadian Power International closely followed the course of electric power system reform and marketization course, actively adapted to demands of economic development, stabilized power generation and heat supply and enhanced innovation-driven development, to build security for people’s livelihood and happiness and realize improvement of performance.

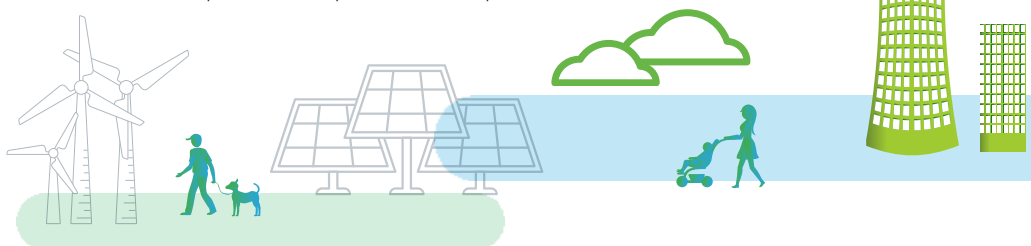
1.1 Stabilizing electric power and heat power

Guaranteeing power generation and heat supply is the foundation for developing national economy and improving people’s livelihood. Huadian Power, seizing new opportunities of new electric power system reform and economic structural transformation, actively advanced structural adjustment and made its contributions to people’s better life.

1.1.1 Optimizing power supply

Huadian Power International centers on the development ideas of “Innovation, Coordination, Greenness, Opening up and Sharing” and worked in economic, clean and high-efficient manner to meet requirements for power supply. The Company has realized the installed capacity of 48,012.2MW by the end of the reporting period. In the period, it has completed output of electricity of 190.064 million MWh, guaranteed supply to meet demand of people’s living for power and supported healthy development of national economy.

- | | |
|---|---|
| Actively advancing wind and solar power | <ul style="list-style-type: none">• We translated and specified wind and solar power development tasks of all areas and implemented targets of responsibility to speed up wind power and solar power resources expansion and project development• We realized solar power installed capacity of 154MW and output of electricity of 180,000MWh; wind power installed capacity of 2,907.7MW and output of electricity of 5.01 million MWh |
| Steadily advancing hydropower | <ul style="list-style-type: none">• We mainly kept paying attention to Sichuan Province’s policy on hydropower development and following progress of first-phase works of environmental protection, migration of residents, land and water resources, etc. related to cascade hydropower stations in Shuiluo River basin• We achieved hydropower installed capacity of 1,959MW and output of electricity of 7.395 million MWh |
| Developing thermal power in order | <ul style="list-style-type: none">• We sped up distributive energy layout in economically developed areas such as Beijing-Tianjin-Hebei, the Yangtze River Delta and the Pearl River Delta, etc. and followed the principle of “determining power by heating load” to develop gas turbine power project; continuously analyzed coal-fired power policy, regulated first-phase progress of coal-fired power and strove to place the project in regional planning• We completed coal-fired thermal power installed capacity of 38,540MW and output of electricity 170.222 million MWh; gas-fired thermal power installed capacity of 4,426.5MW and output of electric of 7.074 million MWh |
| Actively participating in nuclear power | <ul style="list-style-type: none">• We made investment to acquire high-proportion share in Cangzhou Nuclear Power and kept studying national plan for nuclear power development to actively seek opportunities for cooperative development in nuclear power field |



1 Creating Value for Stable and Reliable Power Supply (Continued)

Case: Domestic gas turbine engine enterprise with the highest installed capacity – Hangzhou Huadian Banshan Power Generation Co., Ltd.

Hangzhou Huadian Banshan Power Generation Co., Ltd. (hereinafter referred to as “Banshan Company”) is the first 1,000MW-level gas-fired power plant in China, with gas-fired units’ installed capacity of 2,415MW, and consisting of 3×390MW and 3×415MW gas-steam combined circular generating units. The plant is the first 1,000MW plus thermal plant with continuous safe days over 6,000 in China Huadian and has been appraised as “Class I Enterprise Conforming to Work Safety Standardization”. In order to guarantee smooth power supply during the G20 Summit, Banshan Company did its best to carry out inspection tour, maintenance and elimination of equipment defect, ensuring safe, reliable, economic and environmental operation of equipment and achieving the goal of “Boosting G20 and Making Contribution to Huadian Blue”. Over the years the Power Plant kept satisfactory economic and social benefit and made its contributions to build “Ecological Zhejiang and Beautiful Zhejiang”. “Banshan Company’s Gas-fired Unit Operation and Maintenance” is also a “Striking Name Card” of China Huadian in overseas gas-fired unit both at home and abroad for sharing the gas-fired unit operation and maintenance technology and the results explored in independent repair of heavy-duty gas-fired unit.



Case: The world-first 1,000MW ultra super critical air cooling generator set – Ningxia Lingwu Power Generation Co., Ltd.

Ningxia Lingwu Power Generation Co., Ltd. boasts the world first set (unit) of 1,000MW ultra super critical air cooling generator set. With total installed capacity of 3,320MW, it is the largest thermal power plant in Northwest China and serves as an important power supply support point in national “West-to-East Power Transmission” project. The Phase I works completed 2×600MW sub-critical air-cooling coal-fired units and Phase II works completed 2×1,060MW ultra super critical air-cooling units, with extremely high technological content and remarkable energy and water saving effect, and achieving epoch-making progress in the history of electric power science and technology development. Completion of the project is of important landmark significance for speeding up domestic production of air-cooling system for large-sized power stations in China and ensuring sustainable development of electric power industry in coal-rich water-lean regions in China.



1 Creating Value for Stable and Reliable Power Supply (Continued)

1.1.2 Guaranteeing heat supply

Huadian Power International relies on existing advantages in heating source for heat supply, intensifies unit heat supply improvement and bases on available capacity to strive for higher capacity and actively expand heat supply market. By the end of the reporting period, the Company has reported the heating area of about 170 million m², completed heat supply of 76.0551 million Joule, realized heat supply system capacity to 21,431.5MW and newly added heating area of about 26 million m² in the period of report.

In order to improve customer service level, Huadian Power International standardizes the management, unifies the standard, constantly advances heat supply complaints handling, and provides residents with heating source guarantee to warm up consumers and establish good enterprise image with wholehearted service and thoughtful management.

Case: Shijiazhuang Heating Group optimized customer service

Shijiazhuang Heating Group has always devoted itself to lifting service level to provide customers with stable heat source. The Group formulated the *Measures for After-sales Management*, the *Measures for Management of Customer Service Line* and the *Code of Service Conduct for Customer Service Personnel* as well as other relevant systems, opened the Hotline 966366 for customer service, and put into operation the heating WeChat public service platform to provide users with sound service and adapt to the development trend of “Internet Plus Heating”. In the period of the report, the 966366 Service Line answered 76,454 calls in total, with the availability rate up to 99.22%; 16,194 work sheets were issued in total, with the completion rate of 94.20%; follow-ups were carried out about work-sheet-based services, making users’ service satisfaction rate to 80.99%.

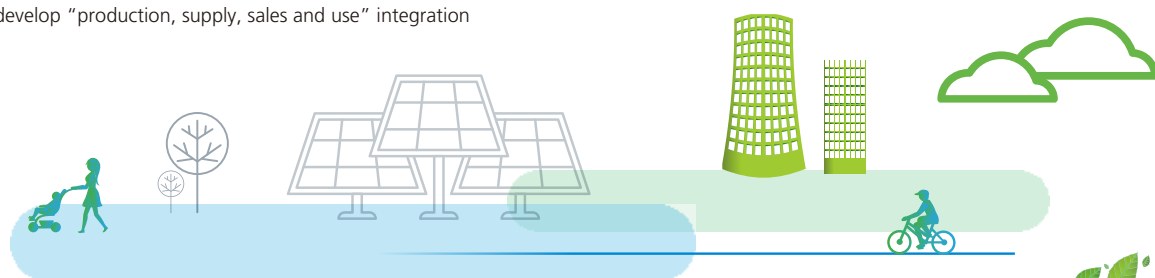
1.2 Innovation-driven development

In the tackling stage of state-owned enterprise reform and electric power system reform, Huadian Power International firmly follows the overall strategy of innovation-driven development, lifts vitality through management innovation and creates benefit with scientific and technological innovation, to constantly enhance its leading advantages in market competition, realize improvement of economic performance and build it into a comprehensive energy one with strong competitiveness.

1.2.1 Management innovation

Huadian Power International makes active efforts to adapt to the new normal in economic development, emancipates the mind, upgrades the idea, deeply advances management, continuously standardizes operation of the listed company, and constantly lifts standardized, intensive and lean management level, opening up a new path to drive improvement of performance through management innovation.

- We innovated in lean fuel management mechanism and implemented the mode of centralized purchase and supply in the transportation and sales companies. We established 3-level coal transportation and sales management organization system to compact foundation of fuel management and realize centralized purchase and sales of coal in thermal power enterprises and self-owned coal mines
- We enhanced control of upstream resources and intermediate circulation links to construct regional integrated marketing system, practice intensive purchase, professional management and market-oriented operation and develop “production, supply, sales and use” integration



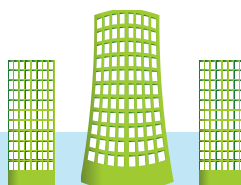
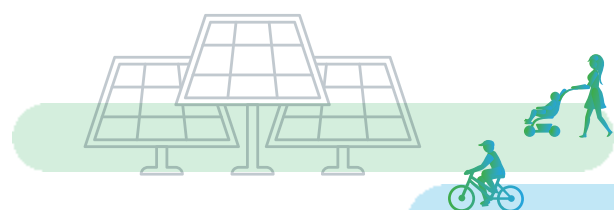
1 Creating Value for Stable and Reliable Power Supply (Continued)

- We implemented technical support system and established technical service center to give play to our advantages in technology and talent. Centering on four businesses of “energy saving, environmental protection, technical supervision and fuel management”, we made active efforts to lift energy technology R&D ability and transformation ability and effectively lift standardized and delicacy management level
- We comprehensively advanced regional “Real Execution” and implemented combination of centralized management and control with regional management and control and regional intensive operation, to give better play to advantages of regional strategic collaboration
- We made efforts to lift professional management level. The Material Company gave play to advantages in professional management and the Project Management Company upheld the engineering management thought of “Strong Owner, General Supervision”. We actively output management service to and pursued intensive management and service in our system

Case: Controlling Price, Guaranteeing Quality, Mixing and Innovating – Lean Fuel Management Mechanism

Fuel is the highest part in thermal power generation cost, so intensifying lean management of fuel is the “Controlling Link” in improvement of performance. Since 2012, coal market has featured aggravating fluctuation, complex law of operation, and higher and higher “production, transportation and sales” concentration. Against the backdrop, our company actively advanced reform of fuel purchase and management system, changed coal-power enterprises’ independent, scattered purchase mode into centralized purchase and supply by transportation and sales companies, which is an important measure in deepening the spirits of reform and innovation.

- | | |
|---|---|
| Controlling price
Scale market-based purchase | • On the principle of being “intensive, professional and market-oriented”, we formed “purchase, sales and translation” – integrated industrial chain, developed upstream coal sources, expanded intermedia logistics, guaranteed downstream coal consumption, and optimized and adjusted coal purchase structure to reduce coal purchase cost |
| Guaranteeing quality
Standardized coal quality test | • We established reference-oriented coal sample system, perfected acceptance process tracing mechanism, built process monitoring system, implemented construction of standardized lab for incoming coal and enhanced talent teams, to effectively lift fuel acquisition level |
| Mixing
Economical oven modulation | • We carried out coal mixing proportioning test, used digital support system of fuel mixing and proportioning, and intensified mixing of low-quality low-price coal and of high-Sulphur brown coal, to guarantee safe, economical and stable boiler operation, effectively reduce fuel cost and lift economic benefit of the sets |
| Innovating
Digital fuel management | • We advanced intelligent management research and pilot, intensified fuel-oriented technical improvement and technological innovation, and perfected functions of fuel management information system, to guarantee full-process tracking and improve information processing accuracy and timeliness |



1 Creating Value for Stable and Reliable Power Supply (Continued)

1.2.2 Scientific and technological innovation

According to requirements of national “13th Five-Year Plan” for scientific and technological innovation, Huadian Power International keeps following strategic keys in science and technology development, increases investment in science and technology and strives to develop higher integration of sci-tech innovation with industrial development, realize faster transformation of research achievements, lift sci-tech contribution and drive industrial optimization and upgrading really through scientific and technological innovation.

Guarantee measures	<ul style="list-style-type: none">• We established sci-tech achievements application and technical support system and upheld combination of independent development with introduction, digestion and absorption to grasp core technology and solve urgent key technological problems• We attached importance to IPR management and upheld combination of sci-tech innovation with enhancing IPR work, to lift IPR creation, application, management and protection ability and gradually realize centralized management of IPRs• We made efforts to perfect sci-tech incentive mechanism and appraisal mechanism, standardize innovations management flow and bring our system’s initiative for sci-tech innovation into play• We enhanced science and technology and policy training and exchange to promote sci-tech resources sharing and lift the company’s sci-tech management level
Sci-tech results	<ul style="list-style-type: none">• We organized to report five results including “Construction of Exchangeable Energy-saving Monitoring Platform Based on Site Energy Saving Analysis and Component Characteristics” for project award under the Golden Bridge Award for technical market of electric power industry• We organized to report five results including “Research and Application of Fuel Finance Business Seamless Integration and Information Management and Control of Fuel Business Full Flow Based on Uniform Platform” for China Electric Power Science and Technology Award of the Chinese Society for Electrical Engineering• 18 sci-tech results won China Huadian Science and Technology Progress Award

Case: Research and Application of Double-fed Wind Power Set Passive Natural Cooling System

The project was completed by Huadian Inner Mongolia Kailu Wind Power Co., Ltd. and firstly developed the passive natural cooling method for wind power generator set cabin domestically and internationally. It makes scientific use of wind power generator set’s wind-facing characteristics and aerodynamic principle and overcomes various limitations of existing technologies. The project has also identified the law of high temperature in wind power generator set’s cabin and reached virtuous circulation of heat radiation of the cabin. Compared with other technical innovation scheme in the industry, the process needs no consumption of electric energy and is energy-saving and environment-friendly. The project is of demonstration significance for promoting cabin temperature fall of double-fed set and driving cabin temperature fall in wind power industry to be high-efficient, environment-friendly and energy-saving, and has higher value for dissemination and development prospects.



1 Creating Value for Stable and Reliable Power Supply (Continued)

1.3 Advancing cooperation and win-win development

Huadian Power International constantly perfects purchase management to advance sunshine purchase and enhance communication and exchange with governments and enterprises, and actively builds strategic cooperation platform to realize win-win development.

- | | |
|-------------------|--|
| Supply management | <ul style="list-style-type: none">• Supplier screening and appraisal standards: Uniform management, dynamic appraisal, scientific management and control and supporting the good and culling out the bad• We perfected credit appraisal system to improve suppliers' performance ability• In the period of report there were 8,817 suppliers making application for joining the supplier network. 6,752 suppliers were newly added, making suppliers in the network up to 39,965 |
| Sunshine purchase | <ul style="list-style-type: none">• We enhanced process supervision to reduce risk cost on the principle of "openness, fairness, justice, integrity and credit"• We built information system to improve electronic management level. In 2016, online transaction amount totaled 1.56 billion Yuan, making cumulative online transaction amount up to 3.788 billion Yuan• We optimized purchase flow to lift intensiveness. In 2016, centralized material purchase rate was 86.79% and average funds saving rate 8.2% |

Case: Cooperation to promote med and long-term development of coal for power

On November 11, 2016, China Huadian concluded a med/long-term agreement for power-generation coal with Datong Coal Mine Group in Beijing. Over the years, China Huadian and Datong Coal Mine Group have supported each other and established good cooperation relations. With conclusion of the agreement, both parties will intensify cooperation, deepen cooperation scope and jointly make greater contributions to smooth, healthy and sustainable development of the industry.



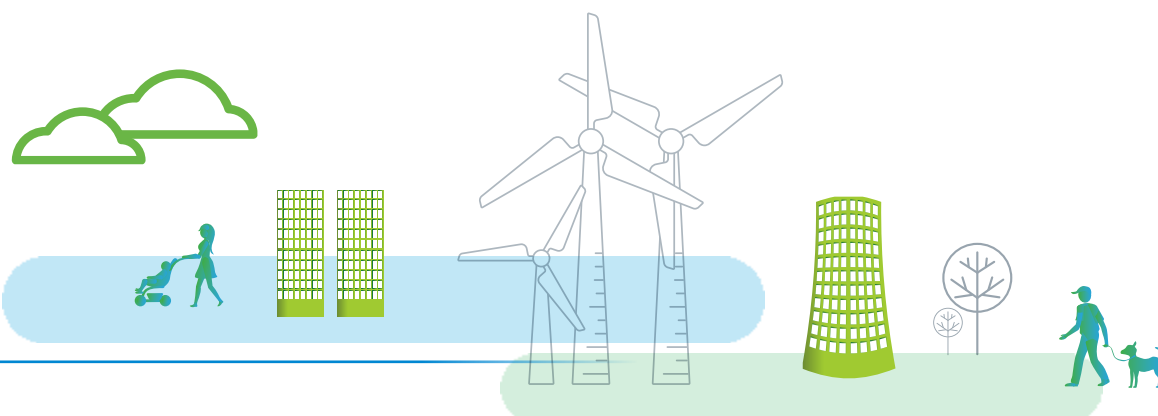
2 Responsibility-based operation to guarantee safety

Huadian Power International upholds the safety idea of people-orientation, responsibility for all members and prevention and control to really enhance its safety guarantee ability, cost control ability and sustainable development ability, and continuously and deeply pursues safety responsibility management to provide safe work environment and protect employees from occupational harm.

2.1 Safety management

Huadian Power International strictly follows relevant laws and regulations of China and strives to structure the safety management system centering on “improving personnel quality, compacting work safety foundation and enhancing ability for improvement of performance”, develops value-thinking-oriented long-term mechanism for safety management, constantly compacts management foundation and lift management level, to advance institutional, normative, standardized and scientific safety management.

- We comprehensively advanced construction of safety management system and further improved safety management system according to our actual situations, built sound safety management flow system and upheld the work safety ideas of institutional safety management, standardized site management, all-member responsibility for safety, scientific safety technology and quality-oriented safety education, and of powerful implementation of safety work, to guarantee practice of arrangement, check and implementation of safety management
- We comprehensively advanced safety standardization and guided and coordinated standardization of all lower-level units, to form a safety standardization management system covering the whole company
- We emphasized safety management in construction process, enhanced planning for leading, deepened first-phase work, intensified project management and control and upheld “construction means operation” idea, to deeply carry out “Four Plans” in projects, specially enhance safety management and quality supervision, perfect quality inspection and quality system and build fine quality project
- We attached high importance to safety training and carried out training of safety skills, appraisal of safety knowledge and work safety article competition. In the period of the report, 69,143 person/times passed relevant work safety exams and 257 became safety specialist
- We innovated in pursuing 7S (Seiri, Seiton, Seiso, Seiketsu, Shitsuke, Safety and Save) management to build safe operation management system with characteristics of Huadian Power
- We pursued work safety responsibility system to clarify duties of managers at various levels in aspects of safety management, safety supervision, safety technology, safety input, safety culture, safety training, emergency management and responsibility investigation and build intrinsic-safety enterprise



2 Responsibility-based operation to guarantee safety (Continued)

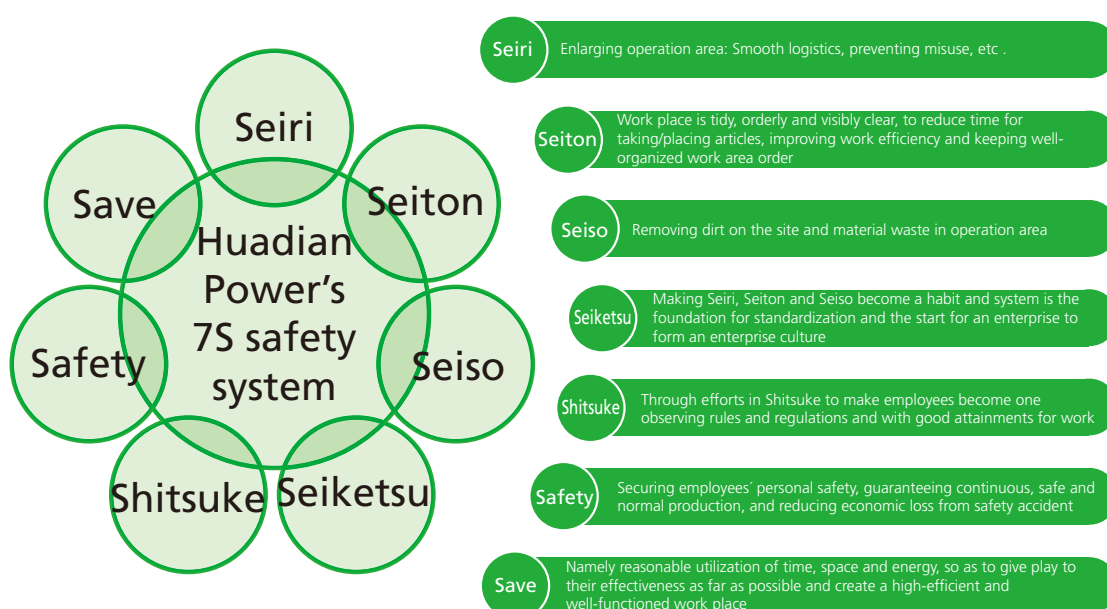
Huadian Power's 3-level management and control mode

Level in Company	Duty arrangement
Company headquarters	Responsible for overall planning, guidance and supervision of enterprise safety management, formulating implementation scheme, organizing commencement and training, summarizing experience during advancing, identifying models and popularizing relevant experiences in the safety management
Secondary units	Responsible for organization, coordination, supervision and appraisal for pursuing safety management and formulating the scheme for pursuing; responsible for supervision, check and appraisal in normal safety management period
Subsidiaries	As main units in pursuing work safety, following overall arrangement of higher-level company to establish organizations and formulate and implement work scheme

Case: Huadian Power International's 7S safe operation management system

The Company, through pursuing 7S (Seiri, Seiton, Seiso, Seiketsu, Shitsuke, Safety and Save) management, structured the safe operation management system with characteristics of Huadian Power International to guarantee safety of all links, laying solid foundation for safe, long-term sustainable development of the enterprise. The "7S" management mode is also a full reflection of enterprise culture and an important means for making excellent results in enterprise culture and realizing enterprise's production and operation objectives.

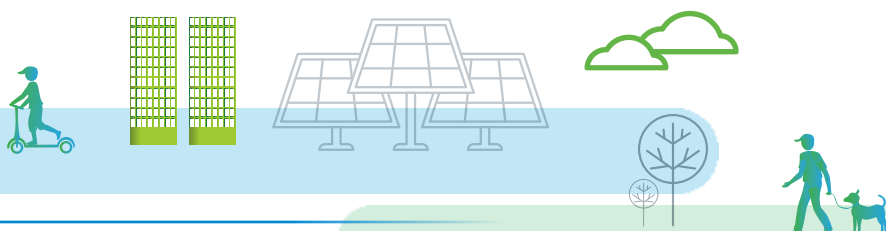
Following the company principles that "the headquarters is responsible for overall situations, secondary-unit enterprises for implementation and basal enterprises for stronger foundation", in popularizing 7S management in enterprises, the headquarters actively carried out overall management and control, secondary units properly conducted pursuing of the mode in subordinate enterprises and power generation enterprises carried out works in order according to relevant arrangement.



2 Responsibility-based operation to guarantee safety (Continued)

Case: Huadian Power International won good results in China Huadian's 27th Session of Skill Competition (Thermal Power Precision Time-check)

The Company attached high importance to the popularization and application of precision time-check in thermal power enterprises, emphasized combination of 7S management and lean management to actively advance optimized repair of thermal power system and improve equipment management level in enterprises. In the 27th Session of Skill Competition (Thermal Power Precision Time-check) by China Huadian Group in October 2016, Huadian Power's team made excellent results, with 6 players granted the title of "Technical Expert of the Group", of which 3 players were recommended as "Technical Expert of Key SOEs", making the cited employees of the Company account for 60.7% of all cited by China Huadian.

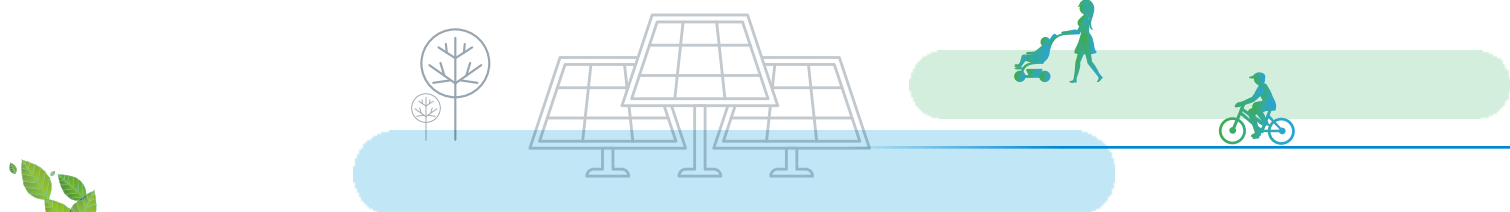


2 Responsibility-based operation to guarantee safety (Continued)

2.2 Safe operation

Huadian Power International highly concerns about safe operation, reinforces efforts to raise safety risk consciousness in electricity, coal and engineering construction sectors, takes prompt control and corrective measures on problems to prevent safety production accidents from the source, laying solid foundation to its healthy and stable development. During the reporting period, no personal death accident was reported.

Scope of business	Preventive measures
Coal	<ul style="list-style-type: none"> To standardize and improve daily and monthly reporting systems; and to keep track of safety management dynamics of coals through regular communication, coordination conferences and periodic reports To put "Three Safety Precautions in Winter and Rainy Season" into implementation, draft program of "Safety Production Month", and carry out related activities To develop detailed and scientific contingency plans To focus on hardening of surface river bed and treatment of flood discharge ditch in some coal mining areas. To strengthen supervision on water drainage and flood prevention on ground and underground, and reinforce the safety maintenance of roadway. To urge the trustee agency to enhance daily safety management of coals To review coal safety cost plans and budgets; and to conduct spot check on coal safety management costs
Electricity	<ul style="list-style-type: none"> To pay special attention to the safety control of "outsourcing projects", organize investigations of hidden troubles and risk prevention, and resolutely curb personal injury caused by accidents To implement the management principle of "Four No Admission" and maintain tough control on unsafe incidents To continuously enhance safety skill training and improve safety consciousness, laying emphasis on safety training and education To conduct thorough investigation and management on hidden dangers To strengthen institutional construction and accountability implementation
Engineering construction	<ul style="list-style-type: none"> To firmly establish the concept of "integration of infrastructure production", strictly implement "four-level" acceptance, and follow up the whole process from equipment production monitoring to installation To put startup requirements into strict implementation; and to enhance inspection of environmental conditions and system integrity before trial operation To organize weekly and monthly safety meetings and safety committee To organize owners, supervisors and construction units to conduct joint inspection, daily inspection and random spot check every week To deepen safety production month activity, seasonal safety inspection and special safety administration To deepen anti-violation and hidden trouble investigation, so as to regulate emergency management To improve the access threshold of safety qualifications of construction teams, so as to weed out construction teams with bad safety records To strengthen safety training and require that only infrastructure safety management personnel with training certificates can take posts



2 Responsibility-based operation to guarantee safety (Continued)

Case: Huadian Qudong Power Generation Co., Ltd. enhances 7S lean management

Each department of Huadian Qudong Power Generation Co., Ltd. has made efforts to promote 7S lean management as planned and has achieved remarkable results. 7S lean management could help display corporate culture concept, build a comfortable and safe working environment, enhance its overall image, and meet requirements of modern corporate management in terms of standardized management, staff literacy, civilized office, safety and conservation. In 2016, the Company carried out in-depth 7S lean management activities, organized a series activities of training, learning, propagation and implementation, so that every employee could have deeper understanding on the basic connotation of 7S lean management.



Case: Shanxi Xialiyuan Coal Industry Co., Ltd. carried out safety training of the Coal Mine Safety Code



Shanxi Xialiyuan Coal Industry Co., Ltd. carried out corresponding safety training of coal mining, excavation, ventilation, electromechanical transportation, occupational health and first-aid, and required all departments to fully recognize the significance of the *Coal Mine Safety Code*, comprehensively understand revisions and content addition/reduction of the new edition *Code*, improve safety awareness and operation skill, apply the knowledge from the training to actual work, put an end to “Three Violations” action and further compact foundations for work safety.



3 Green Electricity and Environmental Protection

Huadian Power International faithfully implements the requirements of *Environmental Protection Law of the PRC* and other laws and regulations, insists on application of advanced technologies to protect ecological environment, advance energy conservation and emission reduction and achieve intensive utilization of resources, strives to promote ecological civilization construction and realize low-carbon, cyclic and green development, and actively builds itself into an eco-friendly and resource-saving enterprise.

The Company continues to build the environmental protection management system, establish a sound environmental protection regulatory system, give play to the real-time monitoring role of environmental protection monitoring platform and strengthen environmental information disclosure management. Whilst carrying out ultra-low emission transformation, it further enhances operation management of environmental protection facilities and supervision of environmental protection indexes, strictly controls qualified pollutant discharge, and successfully completes air quality guarantee and other tasks during the G20 Summit. During the reporting period, the Company witnessed no major environmental pollution accidents or major environmental incidents.

In 2016, the Company made an investment of 2.2 billion Yuan in environmental protection and organized 106 environmental technological improvement projects, including 65 ultra-low emission transformation projects, nine dust control projects for coal yards, four chimney anti-corrosion transformation projects, three comprehensive wastewater treatment projects, and 25 other environmental protection transformation projects such as qualified desulfurized, dedusted and denitrated discharge.

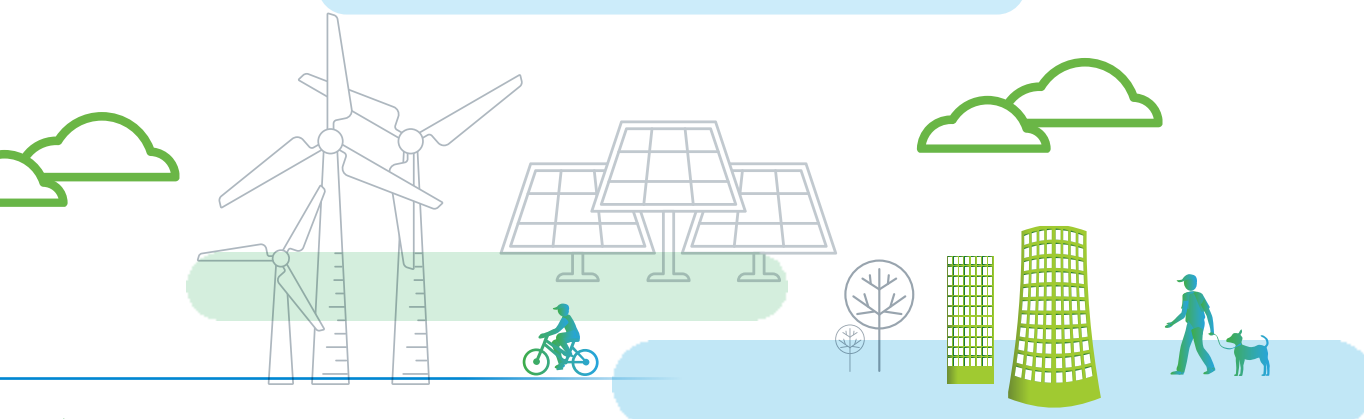
3.1 Green operation

3.1.1 Clean energy development

In recent years, Huadian Power International has insisted on optimized development of thermal power, energetic development of hydropower and active development of new energy such as wind power, nuclear power and solar power, built distributed energy sources based on local conditions, gradually promoted full natural gas industry chain layout, constantly optimized power structure and endeavored to increase the proportion of clean energy development and conversion efficiency of traditional fossil energy.

As of the end of 2016, installed capacity of clean energy of Huadian Power International reached 9,472.2MW, accounting for 19.73% of the total. During the reporting period, newly increased installed capacity of clean energy of Huadian Power International reached 506.9MW, accounting for 21.41% of the total new throughout the year.

Case: Phase II project of Huadian Changyi Wind Power Company Limited is completed and put into operation



3 Green Electricity and Environmental Protection (Continued)

On December 28, 2016, Phase II project of Huadian Changyi Wind Power Company Limited was connected to grid and put into operation. Located in Changyi Binhai Economic Development Zone, Weifang Shandong, the project has an installed capacity of 48MW and total investment of 379.87 million Yuan. The designed annual generating capacity of the project is 93,648MWh; compared with coal-fired power plants with the same capacity, the project can save 30,900 tons of standard coal and reduce 300 tons of sulfur dioxide emissions, 272 tons of nitric oxide, 84,000 tons of carbon dioxide (a greenhouse gas) emissions, 94 tons of dust emissions and 9,271 tons of ash emissions every year.

3.1.2 Clean thermal power development

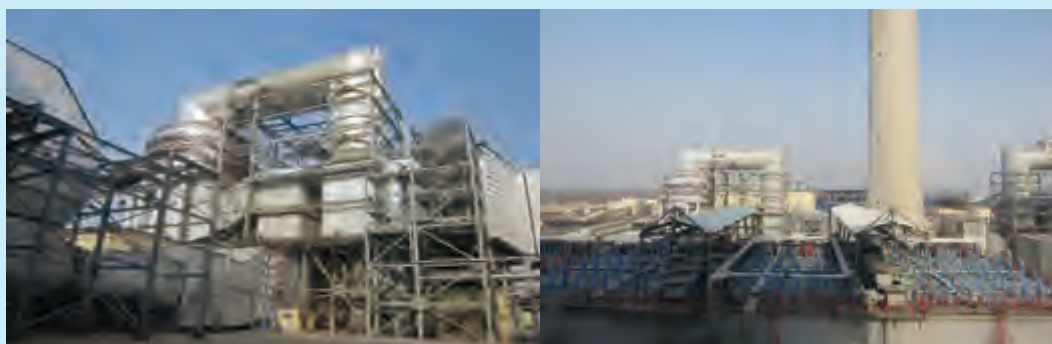
The new Environmental Protection Law was enacted on January 1, 2015, posing higher energy conservation and environmental protection requirements on the power sector. On the path of seeking the balance between economic benefits and environmental benefits, Huadian Power International has been sticking to sustainable development strategy, regarding technological innovation as important support for transformation, upgrading and higher quality and benefits, and constantly improving efficient and clean development of coal power.

All coal-fired units of the Company have been provided with efficient denitration, desulfuration and dedusting facilities to realize qualified discharge of flue gas pollutants; it has also strengthened technological improvement and emission reduction, continuously promoted transformation of environmental protection facilities and accelerated ultra-low flue gas emission transformation based on completion of qualified desulfurized, dedusted and denitrated discharge. As of the end of this reporting period, the Company had 68 ultra-low emission units with a total capacity of 26,925MW (including three units newly built in 2016), of which the quantity accounted for 72.3% and the capacity accounted for 69.8%.

The Company has perfected the construction of environmental protection monitoring platform, enhanced real-time and on-line monitoring of environmental protection, and further strengthened the efforts in environmental protection management and control. In 2016, the Company made some achievements in strengthening unit operation and energy conservation management, with 27 units honored as National Excellent Thermal Power Units, accounting for 75% and 12% of award-winning units in Huadian Power International and all across the country respectively, among which 8 ones won the First Prize.

Case: Ultra-low emission transformation is completed for No. 8 unit of Huadian Zouxian Power Generation Co., Ltd.

On August 16, 2016, the ultra-low emission transformation project for No. 8 unit of Huadian Zouxian Power Generation Co., Ltd. passed the field environmental protection acceptance organized by Department of Environmental Protection of Shandong Province. The unit is the largest one in Jining City and after transformation was completed, main pollutant emissions of the unit, i.e., sulfur dioxide, nitric oxide and dust emissions, decrease by more than 70%, 50% and 70% respectively.



3 Green Electricity and Environmental Protection (Continued)

Case: 9F Class CHP project of Huadian Qingdao Power Generation Co., Ltd. is approved

In 2016, two 9F Class natural gas CHP projects of Huadian Qingdao Power Generation Co., Ltd. (hereinafter referred to as "Qingdao Company") were approved, marking the Company made the breakthrough of "zero" in respect of natural gas CHP projects in Shandong. The project selected large improved gas-steam combined cycle CHP units and showed significant environmental protection effect after it was put into operation; compared with normal coal-fired units, it can reduce 150,000 tons of coal consumption, 250,000 tons of carbon dioxide emissions, 600 tons of sulfur dioxide emissions, 706 tons of nitric oxide emissions, 402 tons of carbon monoxide emissions and 43,000 particulate emissions every year, will provide a new heating area of about 13.70 million square meters, and can replace six coal-fired heating enterprises within the heating range of Qingdao Company.

3.1.3 Greenhouse gas emission management

Huadian Power International promotes research on carbon emission information management and carbon market transactions based on analysis of carbon investigation carried out by the Company and Chinese Certified Emission Reduction (CCER) and other work.

Huadian Power International will continue to actively respond to domestic and overseas calls for green and low-carbon development, try hard to improve the capability of carbon emission management and calmly deal with changes and requirements of national carbon trading market.

3.2 Resources and energy saving

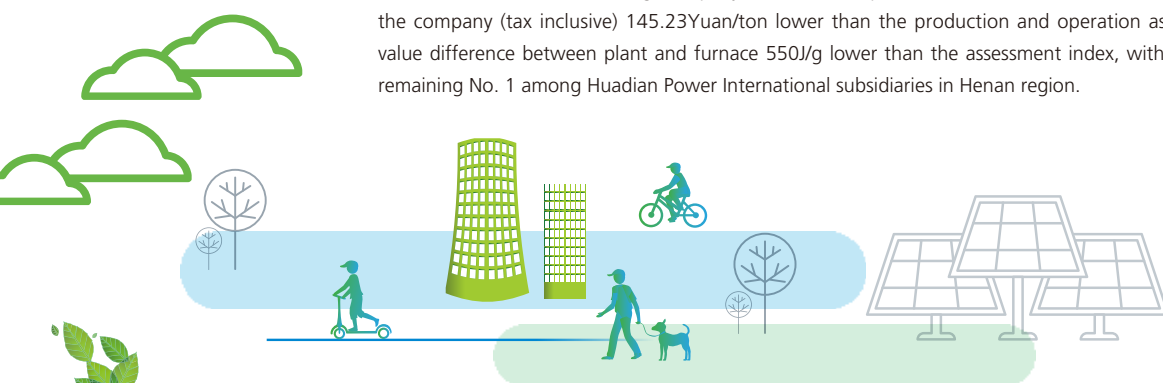
Huadian Power International focuses on advancing eco-friendly and resource-saving energy supply, produces and supplies clean coal, endeavors to scientifically optimize mode of operation and electricity quantity structure, strives to increase resources utilization efficiency and carries out energy consumption index management.

3.2.1 Use of resources

Energy sources consumed by Huadian Power International mainly include coal, natural gas, diesel, gasoline and water. In the process of production and operation, the Company takes measures such as management innovation and energy conservation technological improvement to minimize the consumption of natural resources.

Case: Advanced Fuel Management Enterprise – Huadian Qudong Power Generation Co., Ltd.

The past ten years is a long journey, but has proven to be successful. Huadian Qudong Power Generation Co., Ltd. (hereinafter referred to as "Qudong Company") has won a number of honors granted by Huadian Power International for two consecutive years, e.g., "Advanced Fuel Management Enterprise", setting a good example of giving consideration to both benefits and environmental protection. In particular, in respect of fuel management, Qudong Company maintained outstanding management ideas, carried out integrated fuel management and control in multiple respects, and built harmonious supply, consumption, acceptance and receipt relations. Innovative and harmonious management brought about fruitful results: in 2015, Qudong Company make the unit price of standard coal converted from that of natural coal entering the company (tax inclusive) 145.23Yuan/ton lower than the production and operation assessment index, made calorific value difference between plant and furnace 550J/g lower than the assessment index, with the unit price of standard coal remaining No. 1 among Huadian Power International subsidiaries in Henan region.



3 Green Electricity and Environmental Protection (Continued)

Case: Huadian Qingdao Power Generation Co., Ltd. introduces in desalinated seawater

On September 29, 2016, the desalinated seawater direct supply project of Huadian Qingdao Power Generation Co., Ltd. (hereinafter referred to as "Qingdao Company") and Qingdao Water Group Co., Ltd. was officially put into operation. It is the first large-scale industrial application project of desalinated seawater direct supply and Qingdao Company will consume more than 3.10 million tons of desalinated seawater every year, accounting for about 50% of its annual water consumption, greatly reducing consumption of tap water from municipal pipes and promoting the development of blue resources utilization.



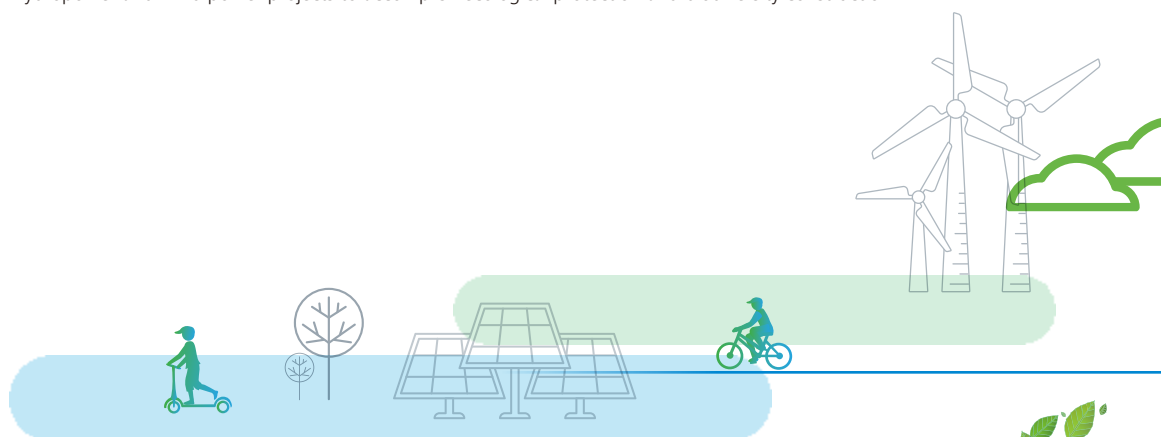
3.2.2 Development of circular economy

Huadian Power International actively pursues circular economy and constantly makes innovation in the method to recycle wastes generated in the process of production and operation. The Company popularizes new approaches to recycle coal ash and FGD gypsum, reduces solid waste discharge and wastewater discharge from coal-fired power plants, and maximally realizes closed cycle of power plant materials and recycling of resources.

The Company rationally utilizes waste resources produced in the process of coal mining, by selling coal gangue and raw coal out, comprehensively utilizing slag and delivering under-mine drainage to under-mine water treatment stations, with part of treated mine water used for under-mine sprinkling and ground water uses and the rest discharged after reaching certain standards.

3.3 Ecological environment protection

Huadian Power International focuses on ecological civilization construction and exerts strict control over engineering construction, mining and operation of hydropower and wind power projects to accomplish ecological protection and biodiversity construction.



3 Green Electricity and Environmental Protection (Continued)

Engineering construction management	During engineering construction, the Company scientifically executes the engineering schedule, and exerts strict control over safety, environmental protection and quality management. It carries out “three simultaneously” environmental protection work for new projects and reduces disturbance to the environment
Backfill and reclamation in mining areas	During mining, the Company compensates and backfills surface subsidence resulting from working face mining, carries out recycling of wastewater in coal mines and accomplishes ecological protection
Ecological protection in the operation	In the construction of hydropower, wind power and PV power generation projects, the Company takes into overall consideration power generation, water and soil conservation, aquaculture, tourism, regional development and so forth, implements measures protecting surrounding environment and biodiversity, and achieves harmony and unity of project development and ecological environment

Case: Maohua Bailu Coal Mine Co., Ltd. in Pinglu District, Shuozhou, Shanxi Province actively restores surface subsidence due to coal mining

Maohua Bailu Coal Mine Co., Ltd. in Pinglu District, Shuozhou, Shanxi Province (hereinafter referred to as “Bailu Company”) insisted on the idea of “production of environmentally-friendly coal and construction of ecological mines”, and focused on work such as water and soil conservation, treatment of surface subsidence and ecological construction. The Company followed the ecological management mode of “treatment before mining, protection during mining and restoration after mining” according to ecological conditions in different mining areas, emphasized prevention and treatment of subsidence, and comprehensively improved ecological environment in mining areas. In 2016, the investment of Bailu Company in afforestation, reclamation and subsidence treatment totaled two million Yuan.



Case: Huadian Power International Sichuan Branch frees rare fishes

Huadian Power International Sichuan Branch (hereinafter referred to as “Sichuan Branch”) actively protected ecological environment in the process of operation; in order to reduce the effects of operation on natural environment, Sichuan Branch regularly organized subordinate power stations to free rare fishes for propagation. In 2016, Shuiluo River Power Station subordinate to Sichuan Branch freed a total of 50,000 rare fishes such as schizothorax prenanti, schizothorax davidi, schizothorax kozlovi, schizothorax wangchiachii and percocypris pingi.



4 People First and Common Growth

Huadian Power International keeps a foothold in New Normal development, promotes the strategy of making the enterprise strong through talents, establishes a fair, reasonable, scientific and systematical human resource management mechanism, and builds relative competitive ability of talents; meanwhile, it cares for employees, maintains unblocked career development channels, constructs a diversified development platform, allows various talents to “function at right moments and fully display their talents” and establish a sound talent team echelon construction system, so as to provide a strong support for strategic transformation of the Company and acceleration of building a competitive comprehensive energy company.

4.1 Attracting diversified talents

The Company implements the requirements in *Labor Law*, *Labor Contract Law* and other relevant laws and regulations, develops normative employment procedures, establishes a sound contract system, buys and maintains social insurance according to law, and practically protects employees’ rights and interests; insists on equal pay for equal work regardless of gender, firmly rejects child labor and prohibits all forms of discrimination and forced labor; protects employees’ personal privacy, constantly perfects management foundation of labor employment, and listens to employees’ appeals. As of the end of the reporting period, the Company has 28,243 employees, with the labor contract signing rate reaching 100%.

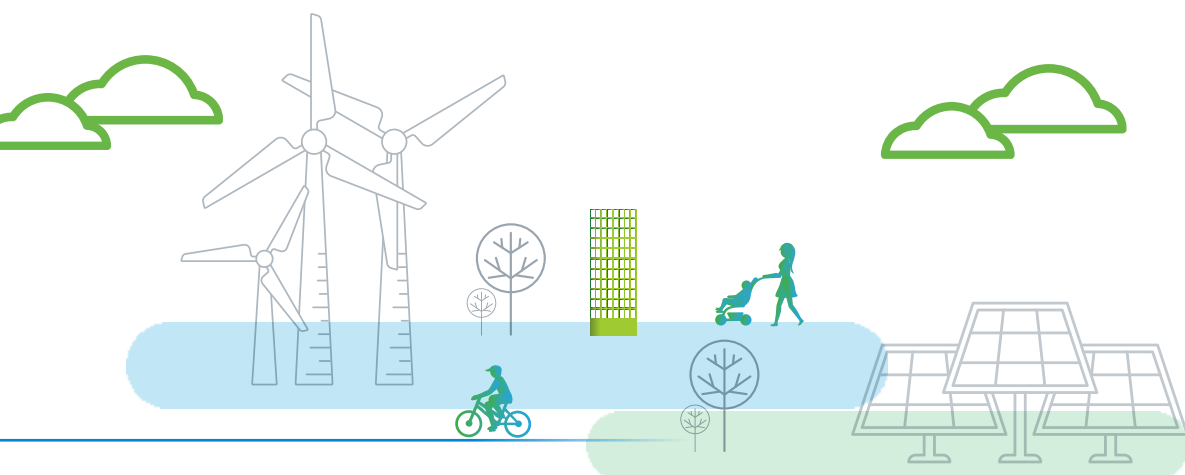
Protection of employees’ rights and interests

Equal employment	The Company insists on equal employment policy, protects legal rights and interests of female and dispatched laborers according to relevant laws and regulations, with the labor contract signing rate reaching 100%
Salary and benefits	The Company has established a performance-oriented salary management mechanism and effectively exerted the incentive and restrictive role of salary distribution; established a sound employee benefits system, strictly implemented relevant national and local insurance laws and regulations, and practically safeguarded vital interests of employees. During the reporting period, the coverage of social insurance for employees of the Company reached 100%
Democratic management	The Company promotes openness of company affairs and democratic management, and establishes a sound grassroots democratic management system
Work and rest	The Company strictly implements national regulations on vacations and leaves; based on different work seniorities, employees can enjoy 5–15 paid leaves; the Company strictly implements provisions on special leaves for female workers, such as maternity leave and breastfeeding leave
Occupational health	The Company organizes physical examinations for normal employees and occupational disease examinations for those in special posts on a regular basis, with the examination rate in both cases reaching 100%

Statistics of employees of the Company during the reporting period are listed below:

Index	Unit	2016	Percentage
Number of employees	Persons	28,243	/

Index	Unit	2016	Percentage
Male	Persons	21,588	76.4%
Female	Persons	6,655	23.6%



4 People First and Common Growth (Continued)

4.2 Building learning platforms

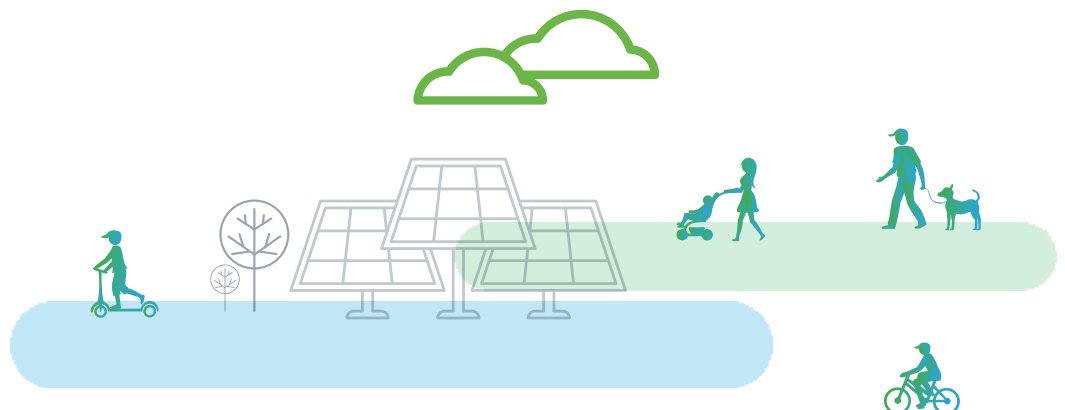
Huadian Power International solidly promotes the construction of a skill training center for employees, constantly improves the training mechanism, builds a learning platform with rich contents, provides wide-range and targeted multi-level training according to different employee demands, so as to help employees realize quality improvement and comprehensive capability development. Training activities mainly include training at the level of Huadian Power International and higher-level units, on-the-job training and continuing education.

According to talent cultivation requirements, the Company develops administrative measures for training, completes the preparation of “post capacity training standards” for 22 professions such as operation management and thermal power technology, organizes nine grassroots enterprises to prepare pilot schemes for post capacity qualification training and employment with certificates, and achieves constant improvement of talent echelon structure by means of “bidirectional” exercises on temporary posts and post shift training.

During the reporting period, 125,155 employees in the Company participated in training, covering enterprise leaders, professional managers, professional technicians, skilled personnel, etc., and each employee received averagely 80 hours of training.

Case: Huadian Power International organizes emergency skill training for young employees

Huadian Power International values work safety and adheres to the “safety first” principle. In order to build a “safe Huadian”, Xuegu Plant of Sichuan Huadian Zagunao Hydropower Development Co., Ltd. organized emergency skill training for employees on June 28, 2016. The training involved use of positive pressure respirators and fire extinguishers as well as cardio-pulmonary resuscitation, and provided the opportunity of mutual learning exchange and actual combat drilling by means of “the old guiding the young”. Through the training, employees’ safety awareness has been improved, and emergency self-rescue and rescue skills have been strengthened, effectively building a “safe circle” for production and management of the Company.



4 People First and Common Growth (Continued)

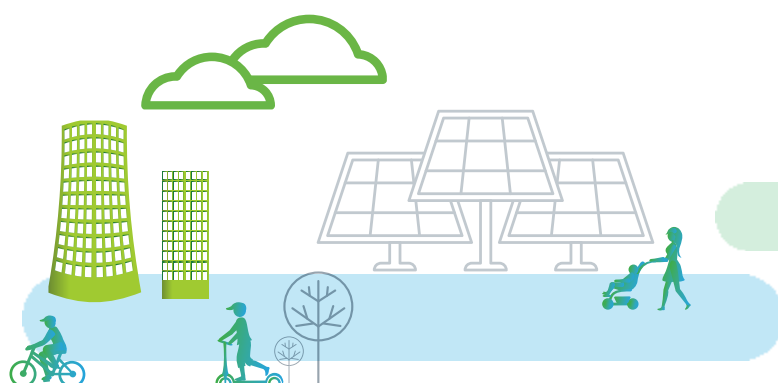
4.3 Caring for employees

Huadian Power International cares for physical and mental health of employees, focuses on occupational diseases prevention and control for employees, and provides employees in special posts with occupational disease examination; boosts normalization of warmth projects, and helps employees in need out of dilemmas and realize values; advocates balance between work and life of employees, organizes rich and colorful cultural and spiritual activities, and builds a happier and more harmonious home for employees.

Health and safety	<ul style="list-style-type: none">Caring for employees' physical health, creating a safe and healthy working environment, building a management system for occupational hazard prevention and control, and establishing a sound long-term mechanism for prevention and control of pneumoconiosis hazards in workplaces
Support for employees in need	<ul style="list-style-type: none">Studying and preparing Opinions on Implementing Employee Care Projects to normalize and institutionalize support for employees in needStudying and founding support funds for employees in need, organizing "1+X" pairing support activities, and promoting normalization of warmth projectsRegulating supplementary medical insurance management, with the percentage of employees participating in supplementary medical insurance in 2016 reaching 94%, to help some employees deal with serious illness medical insurance and living difficulties
Organization of recreational activities	<ul style="list-style-type: none">Improving employees' mental health, strengthening humanistic care and psychotherapy as well as psychological counseling for teams and groups

Case: Sichuan Guang'an Power Generation Co., Ltd. – "A Date of Youth" Sodality

To enrich spare-time life of unmarried employees, Sichuan Guang'an Power Generation Co., Ltd. organized "A Date of Youth" Sodality on April 17, 2016, where nearly 50 unmarried young people from Guang'an Company, Guang'an No. 1 Middle School and Guang'an Yucai Kindergarten gathered together and had fun in games such as "love ball throwing" showing tacit understanding, "eye to eye" guessing game and "dribbling relay". Abundant activities ignited the passion of the young and participants got relaxed, get to know each other and harvested friendship in interactions.



5 Keeping the Faith and Contribution to Society

Huadian Power International values corporate social value embodiment, and keeps in mind and fulfills corporate social responsibility. Based on full play to its own advantages and positive influence, the Company enthusiastically participates in public welfare practices, actively supports public undertakings, gives back to society, benefits people's livelihood, actively helps community construction, establishes harmonious relations between the enterprise and local authorities, and shares civilization development results.

5.1 Targeted poverty alleviation

Huadian Power International earnestly implements the central basic strategy of targeted poverty alleviation and shake-off, gives play to its own advantages, devotes its efforts to helping underdeveloped areas, follows the path focusing on both poverty alleviation through electric power construction and improvement of people's livelihood, sturdily accomplishes fixed-point poverty alleviation and partner assistance, and helps people's livelihood improvement. In 2016, Huadian Power International donated 715,000 Yuan in respect of targeted poverty alleviation.

Huadian Power International actively responds to the new round of national western development and targeted poverty alleviation policies, develops and constructs new energy projects in Guyuan, Haiyuan, Wuzhong and other regions; it has introduced manufacturing poverty alleviation module, 330kV transmission and distribution project poverty alleviation module, new energy power generation poverty alleviation module, agricultural PV poverty alleviation module, Huguang (fishing and photovoltaic complementation) PV poverty alleviation module, roof PV poverty alleviation module, solar-thermal power generation poverty alleviation module and wind (solar) power heating poverty alleviation module in Guyuan region.

Case: Huadian Power International Shandong Branch organizes a donation activity

Targeted poverty alleviation presents boundless love. In order to help households enjoying the minimum living guarantee in Xinhua East Street, Linhe District, Inner Mongolia, on June 1, 2016, Working Committee of Huadian Power International Shandong Branch distributed the *Notice on Organizing "Care Bit by Bit Warms Huadian Power" Donation to Help Those in Need*, and the donation was proceeding in full swing. On June 3, the donations were remitted to Bayannur Charity Federation of Inner Mongolia. The activity practiced the social responsibility idea of "Huadian Power, Care Everywhere" and improved the life of households enjoying the minimum living guarantee.

5.2 Giving back to society

Only by sharing development opportunities and resource values with communities can an enterprise achieve long-term development. Relying on its own expertise advantage, Huadian Power International continuously participates in activities such as student assistance, charitable donations and community volunteers, helping communities improve infrastructures, improving community environment and giving back to society.

Case: The Youth League Committee of Ningxia Zhongning Power Generation Co., Ltd. concerns impoverished students

Huadian Power International insists on the care mission of "caring for others, being happy oneself" and constantly provides impoverished households with warmth. The Youth League Committee of Ningxia Zhongning Power Generation Co., Ltd. (hereinafter referred to as "Zhongning Company") organized its sunshine action compassion team to carry out the activity of "Caring Students and Helping Them Realize Their Dreams" on January 4, 2016, deliver in person the care and New Year wishes to poor students at their home. The activity also raised donations of more than 28,000 Yuan from cadres of Zhongning Company, continuously helping poor students complete their studies. The activity aimed at igniting hope with sunshine of love and helping poor students to realize their dreams, which showed the love and good social image of Huadian staff.

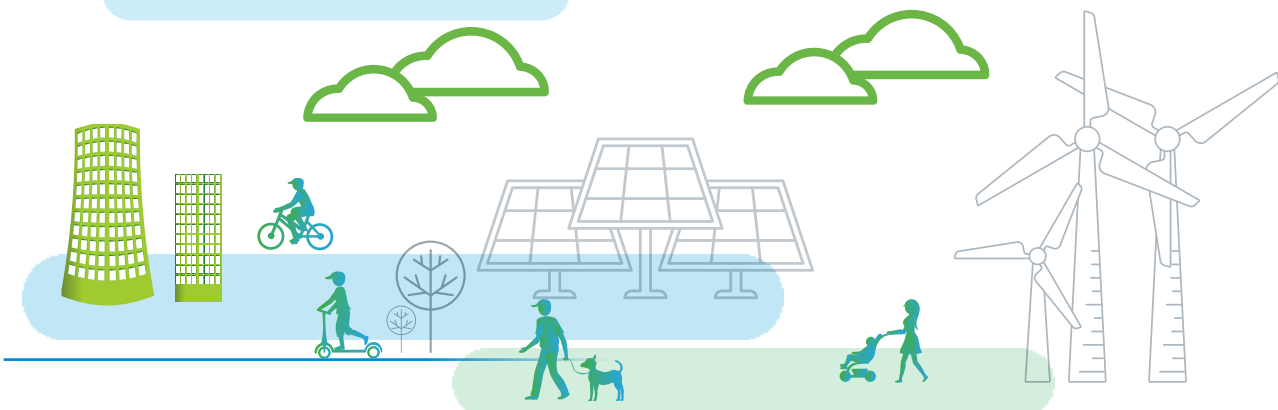


5 Keeping the Faith and Contribution to Society (Continued)



Case: Sichuan Liangshan Shuiluo River Power Development Co., Ltd. organizes Sichuan youth volunteer service activity of "Seven-color Cabin, Love at Shuiluo River"

In order to care for poor school children and guide young people in the Company to carry forward volunteer spirit, Sichuan Liangshan Shuiluo River Power Development Co., Ltd. (hereinafter referred to as "Shuiluo River Company") organized a volunteer service team to go deep into Muli Tibetan region in Sichuan Province, and continuously carry out the volunteer service activity of "Seven-color Cabin and Love at Shuiluo River" covering rich contents such as "colorful class", "young staff supporting education" and "Huadian 'micro' actions". At present, the activity has covered a number of extraordinarily poor students and leftover children from Zang and Yi Autonomous Counties in Sichuan and Yunnan Provinces, forming a volunteer service activity front with brand effect and project characteristics. In December 2016, "Seven-color Cabin, Love at Shuiluo River" youth volunteer service project won the Silver Award of the 3rd Chinese Contest of Youth Volunteer Service Projects, attracting wide attention from all sectors of society. The activity achieved benign cycle of three functions such as caring for poor excellent schoolchildren, fulfilling social responsibility and promoting healthy growth of youth, fully practiced the corporate vision of "Happy Huadian" and contributed to boosting reform and development of the enterprise and serving the construction of a harmonious society.



5 Keeping the Faith and Contribution to Society (Continued)

Case: Zibo Company organizes the work safety volunteer propaganda activity of "Safety Supervision Department and Youth League Committee Linkage to Ensure Safety"

In order to strengthen the awareness of safe development and improve safety quality of all employees, the Youth League Committee of Zibo Company cooperated with Safety Supervision Department to organize the work safety volunteer propaganda activity of "Safety Supervision Department and Youth League Committee Linkage" in the living quarter of the company on June 16, 2016. During the activity, volunteers carried out safety propaganda in various forms, spread knowledge on work safety, transport safety and home safety to the public, and provided the public with consultation and services with respect to policies and laws, occupational health, emergency rescue and escape for self-rescue. On the site of the activity, more than 1,000 propaganda materials such as Daily Water, Electricity and Gas Safe Use Manual and Safety Knowledge Brochure, and consultation services were provided for more than 100 people, effectively expanding social influence of the company and building a good atmosphere where everyone learns about safety, behaves safely and stresses safety.



Future Prospects

The year of 2017 plays a key role in deepening the “13th Five-Year Plan” and promoting the supply-side structural reform in depth and breadth. Under “New Normal” economic development, Huadian Power International will give full play to the advantage in capital operation and scale management, insist on the combination of independent development and capital operation, energetically promote restructuring, boost coordinated development of different segments and differentiated development in different regions, and endeavor to build a comprehensive company featured by optimal asset structure, high management level, good economic benefits, good corporate image and strong competitiveness.

Seeking excellence and developing main business

We will continue to focus on electric power business, insist on the idea of differentiated development, optimize segment development idea and layout, create boutique projects and promote transformation and upgrading of power generation industry; insist on equal attention to stock improvement and incremental development, strengthen operation management, pursue lean management, deal with market-oriented reform of the power sector with management innovation, increase energy conversion efficiency through technological innovation, fulfill work safety responsibility and improve production and operation competitiveness; actively open up overseas market in combination with “The Belt and Road” national strategy, strive for breakthrough in overseas business and strive to achieve quality and efficiency improvement.

Green development and environmental protection

We will stick to following a green development path featured by environmentally-friendliness and resources saving, integrate pollution prevention and control into the whole process of operation and management, devote our efforts to developing clean energy and clean thermal power, support environmental protection technological innovation, implement environmental protection management system, perfect environmental protection monitoring platform, accelerate energy conservation upgrading and transformation, strive to develop circular economy and realize harmonious coexistence of enterprise production and ecological environment.

Performance of responsibilities and joint promotion of harmony

We will adhere to the corporate mission of providing society with safe, clean, reliable and low-cost electric power, stabilize power generation and heating, safeguard people’s livelihood demands and contribute to national economic development; pay attention to employees’ physical and mental health, safeguard employees’ legal rights and interests, establish talent development platform and endeavor to build good corporate culture; enthusiastically participate in public welfare events, actively support public undertakings, share development with the industry and community, deepen the practice of social responsibility and promote synchronous improvement of enterprise benefits and social benefits.





華電國際電力股份有限公司

HUADIAN POWER INTERNATIONAL CORPORATION LIMITED

中國北京市西城區宣武門內大街2號, 郵編100031

No. 2 Xuanwumennei Street, Xicheng District, Beijing, the PRC

Zip Code: 100031