



大唐国际发电股份有限公司  
DATANG INTERNATIONAL POWER GENERATION CO., LTD.

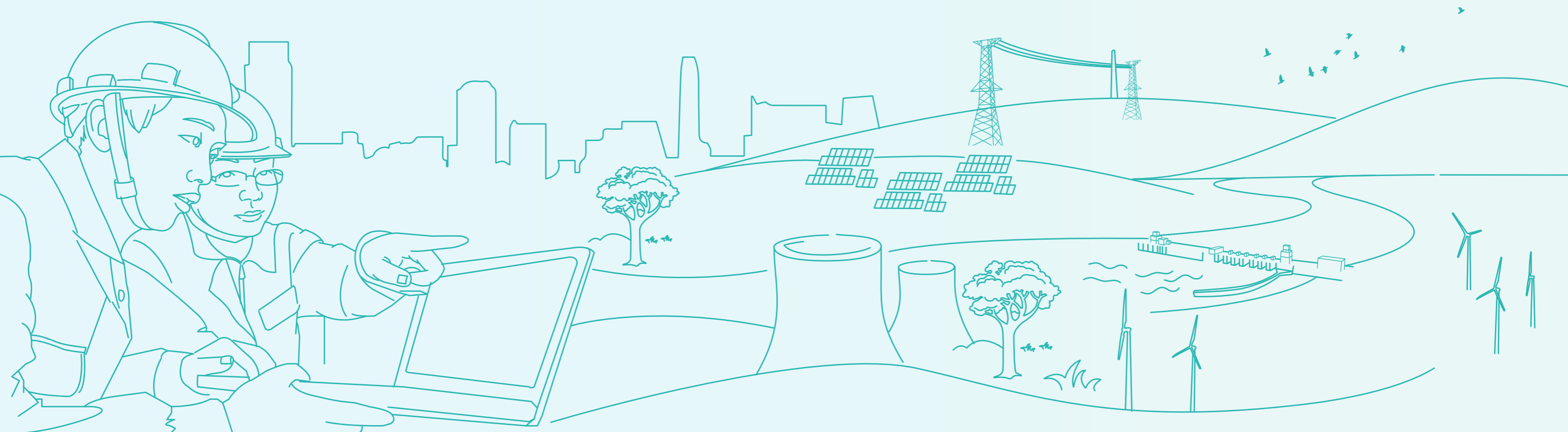


# 2019 Social Responsibility Report

Environmental, Social and Governance Report

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The origins of our logo come from our name in ancient Chinese calligraphy. Appearing like a bell and standing as stable as a mountain, the logo embodies the pragmatic and steady approach of our company. The circle and square represent fairness, justice, unity, and harmony, while the protruding point at the top of the logo indicates our rising development and unlimited potential. The color red is typical of China and is characteristic of our strong national features and ambitious prospects.



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# Message from the Chairman



Chen Feihu, Chairman of the Board  
Datang International Power Generation Co., Ltd.

2019 is an extraordinary year in the reform and development of Datang Power. Under the scientific guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we thoroughly carried out the new energy safety strategy of "Four Revolutions and One Cooperation", adhered to the overall goal of "building a world-class energy company", implemented the overall requirements of "acting with first class standard, being the world-class energy group", and be an implementor of national strategies, a leader of industry development, a provider of clean energy, a creator of corporate value, and a protector of public interests.

**In 2019, we focused on learning and implementing Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era**, and launched education activities under the theme of "remaining true to our original aspiration and keeping our mission firmly in mind". We always prioritized political building and firmly implemented the policies and decisions of the CPC Central Committee and the State Council. We organized various celebration activities for the 70th anniversary of the founding of the People's Republic of China to singing our ode to our motherland. As a central state-owned enterprise(SOE), Datang Power undertook social responsibility and missions earnestly, responded to the national strategies with its development and opened up a new path for high-quality corporate development in the new era, striving to create a "quality-oriented, efficiency-oriented, innovation-driven, eco-friendly, and employee-oriented" company.

**In 2019, we unwaveringly promoted high-quality development** by fully implementing the new development concepts, continuously enhancing the guiding role of strategies, and strengthening the implementation of responsibilities while focusing on wind and solar power, natural gas and service sectors, vigorously promoting the high quality development of new energy. We also deepened strategic cooperation and enhanced partnerships in terms of investment, development, equipment procurement, technological service and so on. In active response to the Belt and Road Initiative, we sped up our pace of exploring the overseas market. We implemented the central government's policies and measures on steady economic growth, effectively coped with the higher demand on electricity during the economic downturn, promoted the disposed of zombie companies and conducted proper governance of enterprises under deficit. While enhancing the benchmarking process with advanced companies, we also put more efforts to broaden the sources of income while reducing expenses, thus guaranteeing a good prospect for our economic performance.

**In 2019, we fulfilled our social responsibility as a central SOE with more determination.** We comprehensively enhanced the risk control in major sectors, including debt, finance, investment and overseas businesses, and kept most risks under control. Great efforts were made to promote poverty alleviation and assist fixed-point poverty alleviation villages to get out of poverty. Besides, we earnestly promoted pollution control and energy consumption reduction, yielding better management effect. Focusing on safety and stability, we helped guarantee sufficient power supply for major events of strategic and political significance, including the celebration of the 70th anniversary of the founding of PRC as well as the Belt and Road Forum. We paid much attention to our stakeholders' expectations and appeals and created a favorable development environment for them.

2020 is a critical year for building a moderately prosperous society in all aspects and the last year of the 13th Five-year Plan period, and it is also a key year for Datang Power to seek high-quality corporate development.

Currently, the situation of domestic coronavirus disease (COVID-19) prevention and control is positive and the economic and social development is speeding up recovery, but the overseas epidemic is spreading rapidly and the situation is grim. This increases the possibility of economic downturns and creates more challenges for the energy sectors. We will stay politically and strategically determined, keep forging ahead with our major responsibilities, and comprehensively promote the high-quality development of Datang power.

**We will always keep the overall national situation in mind and serve all sectors of our economy.** Under the scientific guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we will unswervingly contribute to the rejuvenation of China, promote the development of SOEs, and support state capital in becoming stronger, better, and bigger. We will conscientiously fulfill our historical mission to enhance the competitiveness, innovation ability, controlling power, influence and counter-risk ability of SOEs, and be an implementor of national strategies, a leader of industry development, a provider of clean energy, a creator of corporate value, and a protector of public interests.

**Adhering to the new development concepts**, we will insist on the prevention and control of epidemic situation and the development of enterprises, making overall plans to promote high-quality development of enterprises. We will always regard innovation as the primary driving force for development, set coordinated development as the intrinsic requirement for healthy development, and make green development the necessary condition for sustainable development. Also, the open development is the top priority for integrated internal and external development, and shared development is a specific practice of people-oriented development. We will fully integrate national strategies into corporate development and focus on wind and solar power, natural gas and service sectors based on resources and the listed brands of China Datang Corporation. The domestic and international markets are both vital to Datang Power. We will optimize the industry structure and fill our gaps in development, striving to realize high-quality development of Datang Power.

**We will always implement our social responsibility as a central SOE.** Enterprises that actively undertake due social responsibility are the most competitive and sustainable. Datang Power will fully implement our economic, political, and social responsibility as a central SOE and actively respond to the expectations of our stakeholders. We will integrate social responsibility concepts into our operations. We will thoroughly carry out the major decisions and arrangements of the CPC Central Committee on winning the battle against poverty, complete the task of the fixed-point poverty alleviation of central and local governments in China. Innovate in our social responsibility practices, enhance information disclosure, and respond to external concern in a timely manner. With these efforts, we strive to hit a balance between corporate development with environmental protection and win the trust and support from all sectors of the society.

The new era opens up new journey, brings us new responsibilities and requires new actions. We will adhere to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and welcome new opportunities and new challenges during the reform and development with all sectors of the society. We will compose a new chapter for the high-quality development of Datang Power in the new era and contribute to a moderately prosperous society in all respects.



# Message from the General Manager



Liang Yongpan, General Manager  
Datang International Power Generation Co., Ltd.

2019 was a critical year for the 25 years of development of Datang Power, and it was a year of reform, development, cooperation, challenges, and opportunities. In 2019, Datang Power continued to deepen the reform and corporate development. The business efficiency of the Company was improved to a new high, and a new chapter was created for the high-quality development of Datang Power.

**In 2019, we regarded the political progress of the Party as our top priority.** We learnt Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the guiding principles of the 19th CPC National Congress, called on all employees to “become more aware of the need to uphold political integrity, keep in mind the bigger picture, follow the CPC as the core of the Chinese leadership, act consistently with CPC Central Committee policy”, maintained our confidence in our path, guiding theories, political system and culture, and remained firmly safeguarding President Xi’s status as the core of the CPC Central Committee and the whole Party, as well as the authority and centralized, unified leadership of the CPC Central Committee. We launched the education program with the theme of “remaining true to our original aspiration and keeping our mission firmly in mind”, adhered to Party leadership and Party building, and achieved new results in comprehensively strengthening Party discipline.

**In 2019, we unswervingly promoted high-quality development.** Focusing on the general objective of being a world’s leading energy company, we have strictly followed the overall requirement of “act with first class standard, be the world-class energy group ” while seeking high-quality development. We thoroughly implemented the new development concepts and strengthened the guidance of strategies. Focusing on wind and solar power, natural gas and service sectors, we promoted the development of new energy, and commenced the construction of 1,077.8 MW of new energy projects, among which 620.5 MW was put into operation throughout the year. We sped up the clean and efficient thermal power projects, and put the Leizhou Generating Unit 1, Wei County Generating Unit 2 and Beijiao Generating Unit 1 into operation smoothly. In response to the Belt and Road Initiative, we officially set up the overseas business department to accelerate the Company’s exploration of the overseas market, starting a new journey of our overseas business.

**In 2019, we spared no pains to boost our performance.** We made great achievements in emergent power generation, and significantly boosted our capabilities of thermal power, hydropower, wind power, and solar power generation year on year. We generated a total of 265.29 TWh of electricity and signed contracts for the generation of 128.691 TWh of electricity. We further enhanced our capabilities to guarantee sufficient fuel supplies and control fuel prices, conducted more scientific cost management, and thus further lowered various costs. We efficiently promoted the disposal of zombie companies and the handing of debt risks, and completed basic corporate governance tasks on time, comprehensively improving the asset quality of the Company.

We took solid and firm steps in the past. Looking ahead, we will have more confidence and composure. In 2020, we will usher in a new historical point for building a moderately prosperous society in all respects and ending the 13th Five-year Plan period. We will embark on a key journey for high-quality corporate development.

**In 2020, we will integrate corporate development into overall national development better.** Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we will continue to take “remaining true to our original aspiration and keeping our mission firmly in mind” as a constant and permanent subject, raise our political stance, strengthen our political character, coordinate overall efforts to control the epidemic and promote high-quality development of enterprises, and earnestly undertake our responsibility to provide clean, low-carbon, safe and efficient energy to the country and people and serve the country, the people, and socio-economic development better.

**In 2020, we will implement the new development concepts with greater determination.** Focusing on the goal of high-quality development, we will speed up the development of new energy, accelerate the pace of “Going Global”, upgrade the quality of stock assets, and comprehensively fight against the epidemic, improve our security, efficiency, development results, reform, governance, leadership, and party building to ensure the successful completion of the 13th Five-year Plan and to push high-quality corporate development to a new height.

**In 2020, we will focus more on value creation and appreciation.** Relying on the platform provided by the capital market, we will actively coordinate performance improvement and capital operation, allocate our resources, assets, capital, and funds better, and further release the energy of the listed company, so as to create more values for our shareholders and stakeholders. We will strengthen interaction with stakeholders, win more recognition and support from all sectors of life, and make every effort to create a first-class listed company favored by investors.

The determined traveler will finally reach the destination no matter how far it is, and the persistent doer will finally finish the task no matter how hard it is. In 2020, we will strengthen our determination and confidence to build Datang Power into a first-class company, and forge ahead with constant efforts to compose a new chapter for the high-quality development in the new era.

# Development Course

Datang International Power Generation Co., Ltd. was founded in December 1994. The company is a power generation enterprise and its headquarters are in Beijing. In 1997 Datang Power was listed on the Hong Kong (SEHK) and London (FTSE) stock exchanges. In 2006 the company was listed on the Shanghai Stock Exchange, making it the first Chinese company to be listed on the SEHK, LSE, and SSE. Over the past 25 years, We have subsidiaries and ongoing projects in 19 provinces. With power generation as the major business, we cover various sectors and industries including coal, transportation, circular economy and electricity sales. We have transformed from a thermal power generation company to an integrated energy enterprise with operations in different sectors and industries. In 2019, Datang Power strengthened the confidence in high-quality development and launched a new journey towards a world's leading energy company.

## 1994

Datang Power founded; installed capacity 2,850 MW.

## 1997

Datang Power was the first Chinese power company listed on the Hong Kong stock exchange (SEHK), and the first Chinese company listed on London stock exchange (FTSE).

## 2006

Datang Power was listed on the Shanghai Stock Exchange (SSE) making it the first power company to be listed on the SEHK, FTSE, and SSE; installed capacity exceeded 20,000 MW.

## 2009

Datang Power was included on the Fortune Global 500 and received the "Gold Award for Company" from Asset Magazine; installed capacity exceeded 30,000 MW.

## 2013

Datang Power was recognized as "the Most Socially Responsible Listed Company" and "China's Top 10 Listed Company in Corporate Governance"; installed capacity reached 39,187 MW.

## 2014

Datang Power was included in "Top 250 Global Energy Companies" by Platts for the eighth consecutive year; installed capacity exceeded 40,000 MW.

## 2016

Datang Power accelerated its implementation of the 13th Five-Year Plan and executed structural reforms. The company was among the "Top 250 Global Energy Companies" by Platts for the tenth straight year and received a "Top 100 Listed Companies in China" prize; installed capacity 44,338 MW.

## 2017

With an installed capacity of 48,031 MW, in 2017, the company was listed into the "Top 250 Global Energy Companies" by Platts for 11 consecutive years and awarded "Top 100 Listed Companies in China".

## 2018

With an installed capacity of 62,853 MW, the Company generated a total of 269.704 TWh of electricity, representing a year-on-year increase of 35.74%; the Company was listed into the "Top 250 Global Energy Companies" by Platts for 12 consecutive years.

## 2019

Datang Power installed capacity reached 64,422.6 MW, and we set up an overseas business department to start a new journey for overseas businesses.





# Company Missions

## The implementer of national strategies

In the overall cause of the Party and the country, we actively implement the five-sphere integrated plan and the four-pronged comprehensive strategy and make an improved top design for building a world-class energy enterprise, with a view of building CDT into a stronger, better and larger enterprise and serving as the backbone to safeguard national energy safety.

## The pioneer of industrial development

With world-class modern governance capability and system, first-class human resources, equipment technology and innovation capability, we foster the strength of scientific and technological innovation and deepen cooperation with industry stakeholders to serve as the pioneer and leader of industrial development.

## The supplier of clean energy

We develop clean, low-carbon, safe and efficient energy, improve the strategic positioning and installed capacity of clean energy, reduce fossil energy consumption, and build a clean, low-carbon, inclusive, intelligent, interconnected, safe and efficient energy supply service system. We make contribution to the “the blue sky and green water” with CDT Power by strictly controlling the discharge of pollutants.

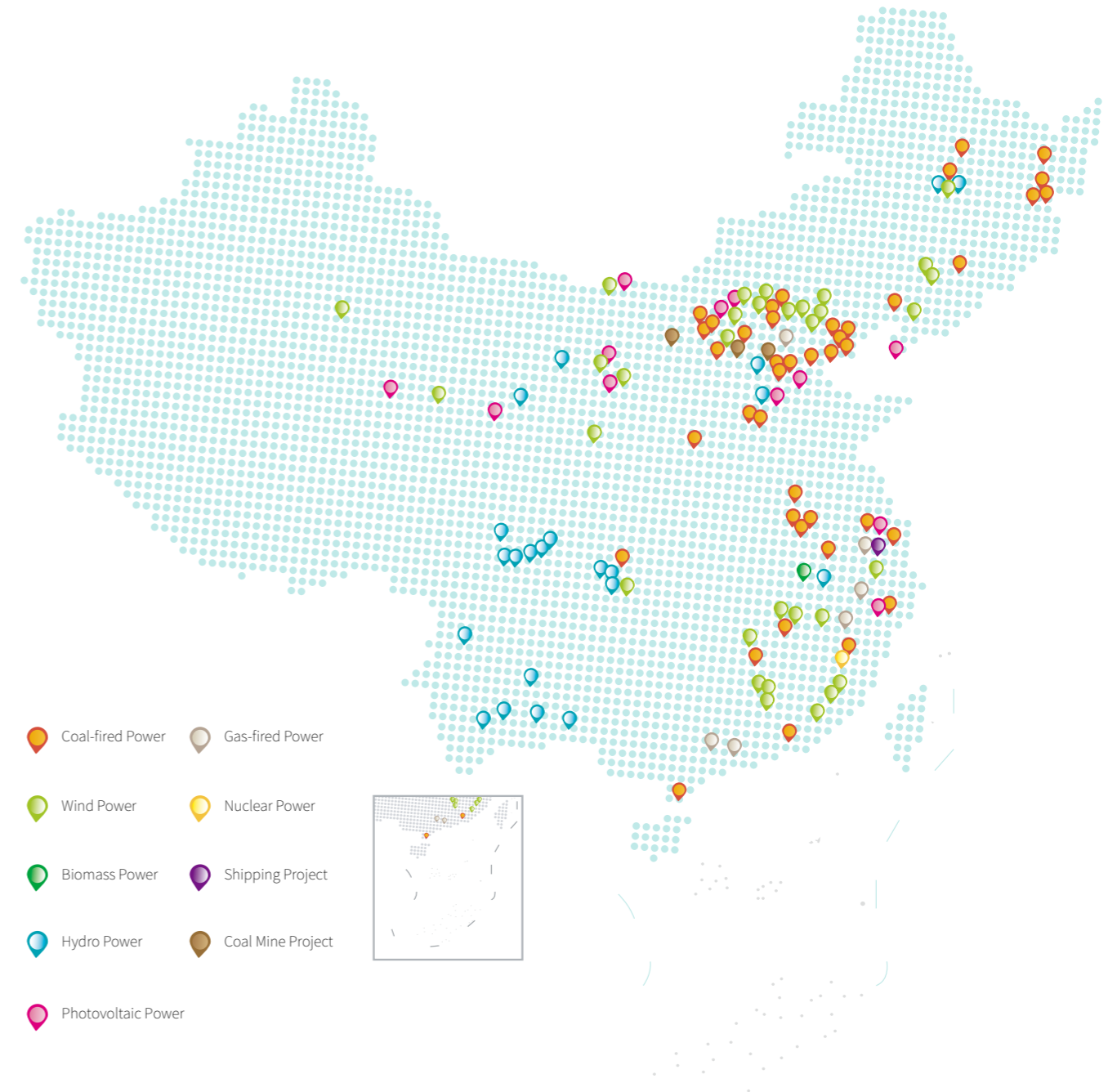
## The creator of corporate values

We strive for high quality development and enhance value creation with first-class standards. We also strengthen the overall concept, pay attention to the development goals of each subsidiary, as well as the overall strategic goals of the Corporation, and raise strategic thinking. More attention will be paid to the annual production and operation indicators and the Corporation's long-term strategic objectives.

## The protector of public interest

We resolutely safeguard the public interest, adhere to the law-based management with integrity and maintain market economic order. We firmly support the fight against poverty and actively participate in social welfare activities such as disaster relief and assistance, facilitating a well-off society in an all-round way. We adhere to the sharing of development results with employees so that they have a stronger sense of fulfillment, happiness, and security.

# Industrial Layout

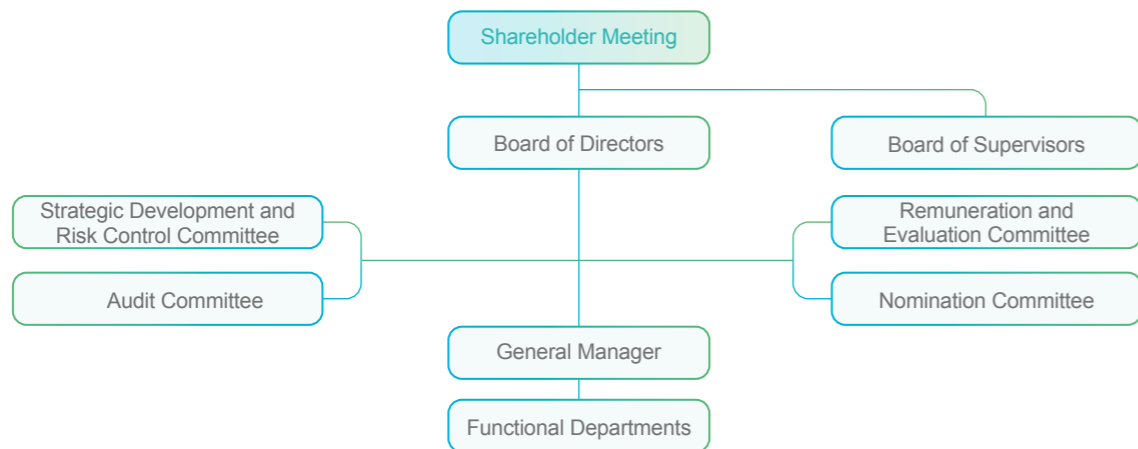


# Strategic Development

Focusing on the general objective of being a world's leading energy company, we have strictly followed the overall requirement of "act with first class standard, be the world-class energy group " while seeking high-quality development. Datang Power will comprehensively respond to the national development strategy and take restructuring and optimizing the business layout as the main task. The Company will focus corporate development on wind and solar power, natural gas and service sectors, and strive to optimize the industrial structure. To vigorously develop new energy, the Company will launch large-scale wind and solar power base projects in northeastern, northern, and northwestern China and develop offshore wind power projects in coastal regions of southeastern China. In other regions, we will launch distributed wind power and photovoltaic projects, explore opportunities for developing hydropower projects in southwestern China, and develop integrated energy service projects in smart parks in developed coastal areas.

# Corporate Governance

By continuing to improve the corporate governance structure and enhancing a modern enterprise system with Chinese characteristics, we have created a new pattern of standardized and scientific governance for listed companies to provide a guarantee for the stable operation of the Company. According to the *Company Law of the People's Republic of China* and the articles of incorporation, we have established a corporate governance structure composed of the shareholder meeting, the Board of Directors, the Board of Supervisors and the management, with the Board of Directors as the supreme authority. The Board of Directors and the Board of Supervisors make decisions on corporate operation and conduct supervision, and the management team takes charge of organizing daily production and operation activities. Based on such a three-tiered management system, we have combined Party leadership with corporate governance, emphasized the legal status of Party organizations in the corporate governance structure, and defined duties, powers and procedures of departments, including Party organizations, according to the requirement of the Organization Department of the Central Committee of the CPC and the Party Committee of the SASAC that Party building in state-owned enterprises should be written into the articles of incorporation. All levels of departments should operate according to law and perform their duties and fulfill their responsibilities properly, effectively protecting the interests of shareholders.



# CSR Management

We pay attention to harmonious corporate and social development, and promote the gradual integration of the social responsibility concept into the corporate operations. Through accepting public supervision, releasing CSR reports regularly, opening a CSR column on the official website of the Company, and organizing Open Day activities, we have strengthened communication with stakeholders, enhanced the transparency of corporate operations, and raised the whole society's awareness and recognition of the Company's sustainable development efforts.



Our official WeChat





Based on the *ESG Reporting Guide* published by Hong Kong Exchanges and Clearing Limited, *GSSB (GRI standards)* and other initiatives, we benchmark against the best CSR reports prepared by our peers at home and abroad, and take into account the status quo of the electricity industry and the Company's development to identify key issues that is significant to stakeholders and the Company's sustainable development.









# Stakeholder Management

We maintain communication with various stakeholders, including the government, shareholders, employees, customers, and the community. With diversified communication mechanisms and channels, we listen to the voices of different parties and respond efficiently, actively promoting mutual benefits and win-win.

Stakeholders	Concerns	Communication Methods	Performance Indicators	Practical cases in 2019
 <p><b>Government</b></p>	<ul style="list-style-type: none"> <li>National policies and energy security</li> <li>Power and heat supply</li> <li>Legal compliance</li> <li>Tax</li> <li>Structural optimization</li> <li>Increasing employment</li> <li>Management and technical innovation</li> </ul>	<ul style="list-style-type: none"> <li>Laws, regulations and policies</li> <li>Relevant meetings</li> <li>Report works</li> <li>Statistical statements</li> <li>Information submission</li> <li>High-level meetings</li> </ul>	<ul style="list-style-type: none"> <li>Power generation capacity</li> <li>Total Profit and tax</li> <li>Jobs provided</li> <li>Innovation results</li> </ul>	<ul style="list-style-type: none"> <li>As the compilation unit, completed the revision of the Rules for Northern China Regional Peak Shaving Auxiliary Service Market with high quality. The compilation work of the Company was highly recognized by the North China Energy Regulatory Bureau of National Energy Administration of the PRC and the grid company.</li> <li>Zhejiang Branch accelerated the construction of a clean, low-carbon, safe and efficient energy system, contributing positively to building Zhejiang into a national clean energy demonstration province.</li> </ul>
 <p><b>Shareholder</b></p>	<ul style="list-style-type: none"> <li>Profit level</li> <li>Standardized operations</li> </ul>	<ul style="list-style-type: none"> <li>General meetings</li> <li>Company announcements</li> <li>Periodic reports</li> <li>Contracts and agreements</li> </ul>	<ul style="list-style-type: none"> <li>Shareholder dividends</li> <li>Shareholder rights and interests</li> <li>Sales income</li> <li>Company profit</li> </ul>	<ul style="list-style-type: none"> <li>Datang Power actively carried out information disclosure. In 2019, the Company released more than 260 Chinese and English announcements.</li> <li>Datang Power improved the management of shareholder meeting, Board of Directors, and Board of Supervisors. In 2019, we hosted 3 shareholder meetings and 11 board meetings.</li> </ul>
 <p><b>Staff</b></p>	<ul style="list-style-type: none"> <li>Democratic rights</li> <li>Health and safety</li> <li>Salary and wellbeing</li> <li>Personal development</li> <li>Education and training</li> </ul>	<ul style="list-style-type: none"> <li>Staff representative's meeting</li> <li>Reasonable suggestions interview</li> <li>Collective contracts</li> <li>Labor contracts</li> <li>Openness of company affairs</li> </ul>	<ul style="list-style-type: none"> <li>Work environment</li> <li>Accident rate</li> <li>Labor union membership rate</li> <li>Collective contract coverage ratio</li> <li>Salary levels</li> <li>Investment in staff training</li> <li>Staff turnover rate</li> </ul>	<ul style="list-style-type: none"> <li>Inner Mongolia Tuoketuo Power Generation Company launched "module-based" training that integrates safety training, simulation training and maintenance practical skills training.</li> <li>Chongqing Branch organized the "Employee-oriented" Occupational Health Lecture.</li> </ul>
 <p><b>Community</b></p>	<ul style="list-style-type: none"> <li>Harmonious community</li> <li>Public welfare cause</li> <li>Safety and environmental protection</li> </ul>	<ul style="list-style-type: none"> <li>Collaborative construction</li> <li>Public welfare activities</li> <li>Safety and environmental protection publicity</li> </ul>	<ul style="list-style-type: none"> <li>Investments in community building</li> <li>Public welfare investment</li> <li>Number of pollution complaints</li> </ul>	<ul style="list-style-type: none"> <li>Datang Power launched the 13th Enterprise Open Day campaign.</li> <li>Tianjin Panshan Power Generation Company organized a book donation activity.</li> </ul>

Stakeholders	Concerns	Communication Methods	Performance Indicators	Practical cases in 2019
 <p><b>Client</b></p>	<ul style="list-style-type: none"> <li>Safe and stable supply</li> <li>Electricity price and heat price</li> </ul>	<ul style="list-style-type: none"> <li>Contracts and agreements</li> <li>Power and heat products</li> <li>Relevant technical services</li> </ul>	<ul style="list-style-type: none"> <li>Client satisfaction level</li> </ul>	<ul style="list-style-type: none"> <li>Hebei Douhe Power Plant, by carrying out strict safety management and improving the macro-safety work safety management model continuously, had operated safely for 15 years.</li> </ul>
 <p><b>Partner</b></p>	<ul style="list-style-type: none"> <li>Honesty and legal compliance</li> <li>Long-term cooperation</li> </ul>	<ul style="list-style-type: none"> <li>Contracts and agreements</li> <li>Products and services</li> </ul>	<ul style="list-style-type: none"> <li>Honesty level</li> <li>Contract completion rate</li> <li>Period of cooperation</li> <li>Responsible purchasing</li> <li>Profit</li> </ul>	<ul style="list-style-type: none"> <li>Datang Power and School of Law, Tsinghua University co-organized the 2019 Datang International Power Generation Legal Training Class to enhance legal compliance of the legal affairs staff.</li> <li>Datang Power held an overseas energy business promotion conference with more than 30 business and non-business organizations for "joint overseas expansion".</li> </ul>
 <p><b>Environment</b></p>	<ul style="list-style-type: none"> <li>Energy conservation and emission reduction</li> <li>Biodiversity protection</li> <li>Green operation</li> </ul>	<ul style="list-style-type: none"> <li>Environmental information disclosure</li> <li>Energy conservation and emission reduction promotion</li> <li>Environmental impact assessment</li> </ul>	<ul style="list-style-type: none"> <li>Installed capacity</li> <li>Ultra-low emission transformation of units</li> <li>Proportion of clean and renewable energy</li> <li>Energy conservation indicators</li> <li>Emission reduction indicators</li> </ul>	<ul style="list-style-type: none"> <li>Hebei Tangshan Thermal Power Company implemented a water-saving transformation, which can guarantee an annual water reuse rate of 97%.</li> <li>Hebei Zhangjiakou Power Plant organized publicity activities on World Environment Day to call on the public to practice environmental protection concepts.</li> </ul>
 <p><b>Social Organization</b></p>	<ul style="list-style-type: none"> <li>Contributions</li> <li>Impact on sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>Meetings</li> <li>Activities</li> </ul>	<ul style="list-style-type: none"> <li>Frequency and depth of participation in activities</li> <li>Membership fee amount</li> </ul>	<ul style="list-style-type: none"> <li>Chongqing Keyuan Energy Technology Development Company and Chongqing Three Gorges University launched a partnership. The two sides jointly released the intelligent fire warning and disposal system.</li> </ul>



# Feature 1

## Sharing the Dream with the Nation, We Celebrate the 70th Anniversary of the Founding of PRC

In 1994, Datang Power was established against the background of the rapid rise of China's economy. For Twenty-five years, Datang Power, as a central SOE on power generation, has effectively fulfilled the corporate mission of "being an implementor of national strategies, a leader of industry development, a provider of clean energy, a creator of corporate value, and a defender of public interests". We share the prosperity of the era while serving the country's economic and social development.

### Undertaking the Mission of Power Supply for the Capital City

A total of 19,116 MW of installed capacity of Datang Power's 14 power plants were connected to the power grid of Beijing-Tianjin-Hebei region, accounting for 21.5% of the entire grid. The power directly transmitted to Beijing accounts for 76% of Beijing's power consumption during the peak season.



### Guaranteeing Stable Power Supply for the 70th Anniversary of the Founding of the People's Republic of China

The safe and reliable power supply during the celebration of the 70th anniversary of the founding of PRC was essential to safeguarding the national reputation and image. Datang Power consciously fulfilled the political mission to provide safe and reliable power supply for the capital city. We formulated the "1 + 8" power supply work plan and clarified the working target of "six bans with six guarantees" to realize full-coverage inspections of the 26 key enterprises in the Beijing-Tianjin-Hebei region and to guarantee work safety, infrastructure safety, environmental protection, network and information security, fuel and material security, etc., which ensured proper implementation of responsibilities, efficient operation of mechanisms and that all risks were under control.

In 2019, the Company completed the guarantee task of sufficient power supply during the 70th anniversary of the founding of PRC according to high standards and with high quality, winning the praise of the National Energy Administration.



Chen Feihu, Chairman of Datang Power, visits Beijing Gaojing Thermal Power Plant to inspect the preparations for stable power supply for the 70th anniversary of the founding of the People's Republic of China.



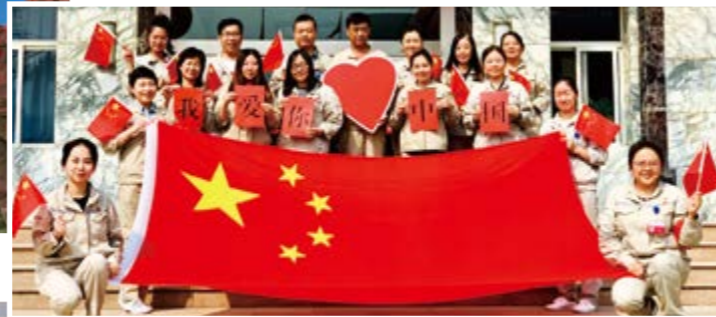
# Celebrations on the 70th Founding Anniversary of the People's Republic of China

To celebrate the 70th founding anniversary of the People's Republic of China, Datang Power conducted patriotic education activities among the all staff, created the atmosphere where everyone remains true to the original aspiration, keeps the mission firmly in mind, holds the banner of the Party up high, and makes concerted efforts for success, and thus motivated employees to devote to their job and translate their love for the Party and the nation to the mental power that drives them to create a world-class energy company.

Tianjin Panshan Power Generation Company launches the activity of "A Photo of Me and the National Flag".



A photo of employees from Beijing Gaojing Thermal Power Plant with the national flag.



Jiangxi Branch holds a walkathon to show employees' patriotism.



Scan the QR code to watch employees of Datang Power showing their love for the motherland

Hebei Wangtan Power Generation Company organizes the singalongs to celebrate the 70th anniversary of the founding of the People's Republic of China.



Liaoning Branch organizes a knowledge contest on Party history and the history of the PRC themed My Motherland and Me.



Hebei Baoding Thermal Power Plant holds the flag-raising ceremony and plays the national anthem.



Hebei Douhe Power Plant organizes cultural and art performances to celebrate the 70th anniversary of the founding of the People's Republic of China.



# Feature 2

## Taking Responsibilities as a Central SOE to Combat the COVID-19

Since the outbreak of coronavirus disease (COVID-19), Datang Power has thoroughly studied and implemented the important remarks and instructions of President Xi Jinping as well as decisions and arrangements of the CPC Central Committee. We have comprehensively implemented the general requirement to be "united to take science-based and targeted measures and fight the epidemic with confidence". According to the arrangements and decisions of the SASAC and China Datang Corporation, we have guaranteed efficient epidemic prevention and control while ensuring stable production and operation, and made all-out efforts to ensure safe power generation, efficient operations, and stable heat supply, thus providing strong energy guarantees for the combat against the COVID-19 epidemic.

The Company has actively responded to the call of the State and made donations to local governments. We have organized employees to donate for supporting the epidemic prevention and control. All subsidiaries of Datang Power as well as their employees have donated a total of RMB more than 5.8 million and more donations were being made as of the release of the report.

### Charitable Actions of Datang Power



An employee of Datang Power participates in a blood drive organized by the Company.



Live News of CCTV reports Datang Power's actions in resuming work and epidemic prevention and control, and praises the positive measures of Datang Power for its stable power supply for the capital.



Employees make donations.

### Implementing Strict Epidemic Containment Measures



An employee disinfects the office building.



Employees stand guard at the entrance to the plant to take the body temperature of employees.



Body temperatures of employees are taken before starting to work.

### Stable and Safe Power Supply



Enhanced supervision and monitoring



Enhanced regular checks of equipment

### Playing the Leading Role of Party Members



A commando of Party members



Employees sign a commitment letter to show their determination to combat the epidemic.



A commando of Youth



# Quality centered

## Laying a Solid Foundation for Development

Promoting high-quality development is an inevitable requirement for response to the major contradictions in our society and building a moderately prosperous society in all respects. Datang Power, adhering to the principle of quality first and efficiency foremost, With a focus on wind and solar power, natural gas and service sectors, improves asset quality, and gradually develops overseas energy markets, so as to achieve higher quality, better structure and higher efficiency.

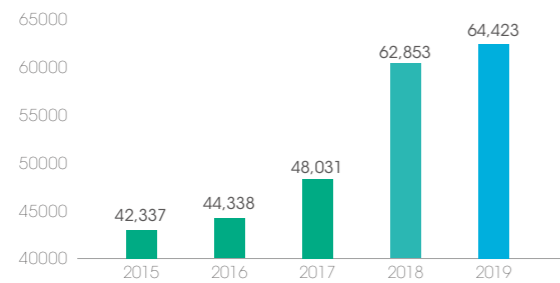




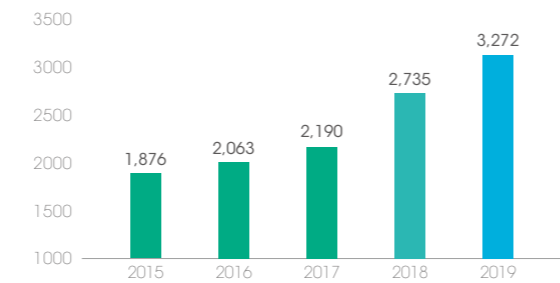
# Focusing on Wind and Solar Power, Natural Gas and Service Sectors

We have conscientiously implemented the new development concepts, thoroughly carried out the “Four Revolutions and One Cooperation” energy development strategy, and focused on wind and solar power, gas power, and comprehensive energy services, and expanded projects through active collaboration with the government, cities, and industrial parks, so as to create a new pattern for high-quality development. In 2019, a total of 1,077.8 MW of new energy projects was commenced and 620.5 MW of projects were put into production, which further optimized the Company’s power supply structure.

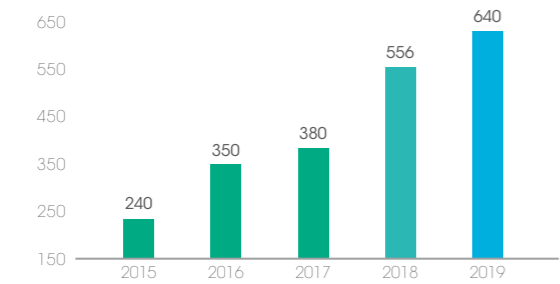
Total Installed Capacity (MW)



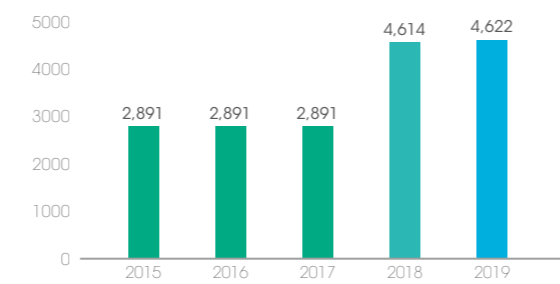
Installed Wind Power Capacity (MW)



Installed Photovoltaic Power Capacity (MW)

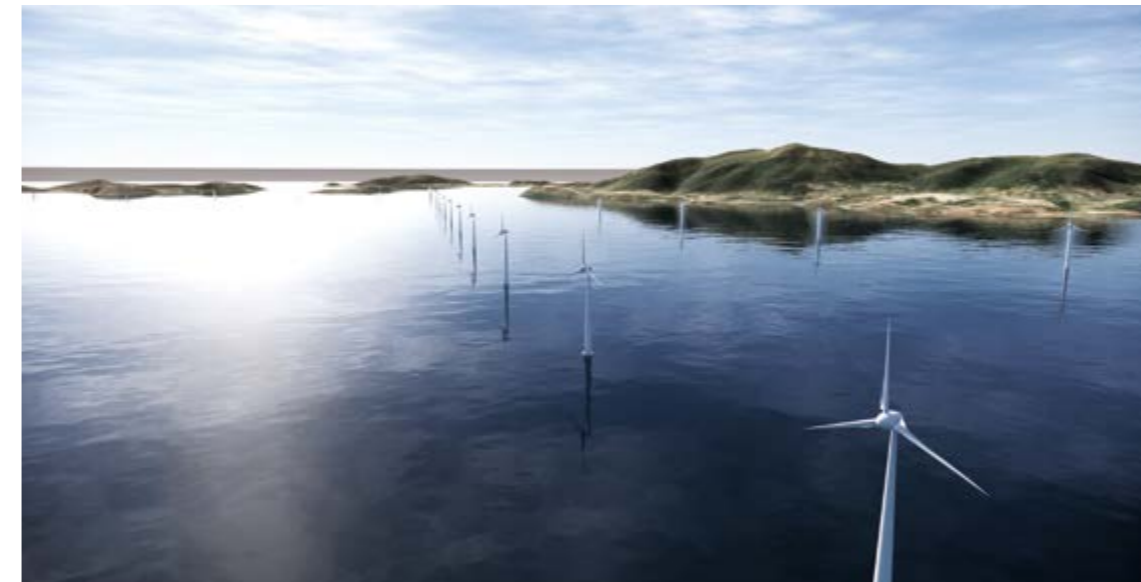


Installed Gas-Fired Power Capacity (MW)



## Wind Power

Jiangxi Shicheng Jinhua Mountain 99.5 MW Wind Power Project and Qinghai Dulan 50 MW Wind Power Project were put into operation. By the end of 2019, the wind power installed capacity of Datang Power was 3,272 MW and mainly distributed in Western Inner Mongolia, Liaoning, Heilongjiang, Ningxia, Hebei, Shanxi, Jiangxi, Fujian and other places.



The Fujian Pingtan Datang Changjiangao Offshore Wind Farm Project is designed with a capacity of 185 MW and is the first offshore wind power project of Datang Power.

Hebei Chengde Fengning Datan 200 MW Wind Power Project (Manjing Wind Farm) was connected to the grid for power generation, contributing positively to the atmosphere of regions around the capital city.





## Photovoltaic Power

The 50 MW photovoltaic project in Zanhuang, Hebei, the 23 MW forestry light complementary photovoltaic project in Eryuan Town, Wencheng County, Zhejiang, and so on were put into operation. By the end of 2019, the photovoltaic installed capacity was 640 MW, and mainly distributed in Western Inner Mongolia, Qinghai, Ningxia, Hebei, Sichuan, Zhejiang, Liaoning and other places.



Qinghai Golmud Solar Photovoltaic Generation Company is the photovoltaic power plant with the largest installed capacity under China Datang Corporation.



Ningxia Qingtongxia Solar PV Power Station is the first photovoltaic power generation project in China to receive the National Quality Engineering Award.

## Gas-Fired Power

Beijing Gaojing Thermal Power Plant was put into operation. By the end of 2019, the installed capacity of gas turbines of Datang Power was 4,622 MW and mainly distributed in Guangdong, Zhejiang, Beijing, Tianjin and Tangshan, Jiangsu and other places.



Beijing Gaojing Thermal Power Plant has two gas-steam combined cycling units with installed capacity of 1,380 MW currently. It is the largest gas plant under China Datang Corporation in service and in Beijing.





# Improving the Quality of Assets

We comprehensively deepen reforms. To further improve the quality of corporate assets, we have promoted the disposal of zombie companies, handled debt risks efficiently and conducted proper governance of enterprises under deficit. We have transferred water, power, and heat supply as well as property management sectors with the follow-up operation, and accomplished maintenance and renovation tasks of relevant companies.

In 2019, we disposed of 7 zombie companies with a completion rate of 100%. We transferred water, power, and heat supply as well as property management sectors with a completion rate of 100%.

## Case Hebei Matou Thermal Power Company unleashes the potential and improves the efficiency to vitalize the company

Hebei Matou Thermal Power Company has promoted the disposal of zombie companies, kept releasing its potential in getting out of the red, and promoted high-quality development.

- **Strengthening the sense of responsibility of executives:** The company set performance targets for corporate leaders and middle-level personnel.
- **Enhancing employees' awareness of energy saving:** The company lowered the reimbursement limit for travel expenses, implemented quota management for major business expenses, and reduced controllable expenses and water bills by RMB 31.12 million year on year.
- **Consolidating the awareness of self-reliance:** The company independently completed the cleanup of the flood control ditch and coal discharge ditch at the coal yard, managed green areas within the plant, and repaired old equipment and reused the waste, saving RMB 1.55 million of costs.
- **Raising the awareness of thrifty:** The company promoted the auction of idle assets and waste materials, and realized auction sales of RMB 1.62 million.



Hebei Matou Thermal Power Company

# Expanding Overseas Businesses

In an active response to the Belt and Road Initiative, Datang Power has been fully committed to exploring overseas energy businesses, to promote the building China Datang Corporation into a world's leading energy company. In 2019, we set up an overseas business department and launched a new journey for overseas businesses.

## Case Datang Power holds an overseas energy business promotion conference to build a circle of friends for "joint overseas expansion"

To speed up the pace of "going global", expand overseas energy markets, and seize development opportunities, the Company held the Datang Power Overseas Energy Business Promotion Conference in Beijing on December 25. Representatives from more than 30 business and non-business organizations, including government departments, power project construction organizations, host equipment manufacturers, power project design institutions, financial and consulting agencies, international organizations, law firms, etc. were invited to attend the conference and discuss about overseas business expansion and potential partnership, aiming to realize mutual benefit and win-win through complementary advantages and deepened partnerships. For the next step, the Company will focus on the markets of Southeast Asia and the Belt and Road. Pursuing the low-carbon, clean, efficient and advanced development, we will vigorously promote new energy projects, develop natural gas projects moderately, and launch clean and efficient coal power projects steadily, to ensure high-quality overseas business development of the Company.



Datang Power Promotion Conference on the Expansion of Overseas Energy Businesses

## Case Anhui Branch creates a good brand image of Datang Power in overseas markets

As more Chinese enterprises are "going global" with faster pace, Anhui Branch hopes to keep pace with them and build a good overseas image. It has strictly regulated operations of external markets through contract management, safety supervision, and quality management. As of the end of 2019, Anhui Branch had completed more than 18 regular maintenance projects and more than 40 supervision projects, including projects entrusted by the Chilaza Power Station and the Geneponto Power Plant in Indonesia as well as the Payra Power Plant project in Bangladesh. The branch has not only demonstrated the brand image of Datang Power, but also opened up a broader space for China Datang Corporation to launch economic partnerships worldwide.



# Efficiency oriented

## Promoting Value Creation

Higher efficiency is the key to achieving high-quality corporate development. Datang Power has always adhered to the concept of safe development, continuously strengthened the transformation and upgrade of energy production and consumption, and constantly improved compliance management, thus steadily improving the overall operating efficiency.





# Safety Management

## Establishing a Safety Management System

**Improving the safety management system.** We strictly abided by the *Electric Power Law of the People's Republic of China* and the *Work Safety Law of the People's Republic of China*, and based on the power list issued by China Datang Corporation, formed a standardized and effective safety management system and a scientific closed-loop management model. By developing and issuing a number of safety management documents, we ensured the enforcement and binding power of the work system and comprehensively improved our management and control capabilities. We guaranteed the fulfillment of safety management responsibility level by level, strengthened process management and control to advance safety checks and conduct precise supervision and inspection. We improved the work safety responsibility system for the whole staff, and assigned safety responsibilities to each specific employee.

**Strengthening safety inspections and contingency management.** In accordance with the levels of regional danger, types of hazards and seasonal characteristics, we carried out all-round safety inspections, and strengthened the identification and elimination of hazards and risk control to improve safety management and control efficiency. We regularly revised and improved our contingency plans, and repeatedly verified potential hazards in all production processes, developed more effective solutions to solve problems on production sites. In 2019, the headquarters organized five rounds of thorough inspections, supervised the rectification of 4,262 safety issues, and distributed 27 issues of the *Notice of Work Safety Supervision*.



Inner Mongolia Tuoketuo Power Generation Company has comprehensively improved the safety management system and won the title of National Advanced Unit for Equipment Management in the Power Industry in 2019.

## Enhancing Employees' Safety Awareness

**Strengthening team safety management.** Regarding team safety management as the basis of safety management, we revised the *Guidance on Standardization of Team Building* to upgrade the supervision and appraisal standards, improve the efficiency of team management, and effectively enhance employees' awareness of work safety responsibility.



Jiangxi Xinyu Power Generation Company organizes a training lecture on first aid.

**Carrying out work safety training.** In order to strengthen the ability of safety supervision, we organized the training sessions for safety supervisors focusing on themes of work safety regulations, safety management for outsourced projects, emergency management, occupational health, etc. Based on the characteristics of work safety in the power sector, we innovated in the forms of the publicity of safety knowledge, produced rap videos on safety, and disseminated safety-related concepts and requirements in interesting forms. In 2019, we held a total of 93 safety lectures among leaders from different departments and 1,038 safety warning training sessions to create a favorable atmosphere for the promotion of work safety and improve employees' overall safety awareness.

## Guaranteeing the Safe Operation of Equipment

Strengthening equipment overhaul and maintenance. Tapping internal maintenance capabilities, we continued to promote the integration of regional maintenance resources and independent maintenance for better maintenance quality. We clarified the responsibilities of production managers and professional maintenance staff, organized expert groups to perform pre-repair, mid-repair inspections and acceptance inspections of key production processes, and supervised production operations of companies on site. Through such efforts, we achieved advanced diagnosis and treatment of production problems, thus ensuring safe and reliable operation of equipment.

Class A Reliable Generating Units of China in 2019	
Tianjin Panshan Power Generation Company	Generating Unit 3
Inner Mongolia Tuoketuo Power Generation Company	Generating Unit 11
Hebei Zhangjiakou Power Plant	Generating Unit 1
AnHui Huainan LuoHe Power Plant	Generating Unit 5
Zhejiang Wushashan Power Generation Company	Generating Unit 2
Jiangxi Fuzhou Power Generation Company	Generating Unit 2



# Cost Reduction and Efficiency Improvement

## Participating in the Power Market Competition

We take measures to adapt to market competition and respond to the complex and changing situations of the power market. By establishing a regional integrated marketing management system, we aim to improve our marketing systems with standardized management, and integrate regional power, heat and service resources so that we can provide multiple energy options for the power market and enhance our competitiveness. In 2019, the Company's transaction volume of electricity reached 128.691 TWh, a year-on-year increase of 33.14%.



2019 the Company's transaction volume of electricity reached

**128.691** TWh

A year-on-year increase of

**33.14** %

## Improving Fuel Management

**Regulating supply chain management.** We strictly select suppliers by fully considering their impact on the environment and society and help suppliers to improve the level of responsibility management and build a responsible supply chain.

**Building fuel supply chains.** In response to the "highway to railway" policy, Datang Power, with Datang Power Fuel Company, Inner Mongolia Tuoketuo Power Generation

Company and Zhangjiakou Power Plant as the major participants, has established three supply chains, namely Northern Shanxi – Beijing-Tianjin-Tangshan supply chain, Ordos- Tuoketuo Power supply chain, and Jungar Warm Water Collection and Transportation Station-Zhangjiakou supply chain. In 2019, the Company transported a total of 11.5449 million tons of coal, accounting for 104% of the contracted quantity and generating RMB 218 million of economic benefits.

## Deepening Energy Saving and Consumption Reduction

**Promoting advanced water-saving technologies.** According to the water-saving requirements of governments at all levels and China Datang Corporation, we have strengthened water-saving management of companies under Datang Power, and increased the water reuse rate. We broke down the annual plan 2019 and made monthly reports to strengthen the water-saving awareness of all levels of enterprises.

Index	Units	2017	2018	2019
Water in Total	Million tons	141.68	190.4429	187.328
Water Consumption for Power Generation	kg/KWh	0.85	0.88	0.82
Oil in Total	Million tons	0.004	0.0113	0.75
Oil Consumption for Power Generation	ton/hundred million KWh	2.39	5.20	3.29
Comprehensive Power Consumption Rate	%	5.30	5.56	5.61
Standard Coal	Million tons	47.98	64.861	64.831
Coal Consumption for Power Generation	g of standard coal/KWh	300.65	299.71	296.23

**Carrying out energy consumption management.** In compliance with relevant regulations and rules such as Regulations on Energy Conservation of Datang Power and the Management Practices for Energy Conservation and Emission Reduction of Datang Power, to continuously improve energy consumption management, we adhere to the energy consumption management mode integrating on-site diagnosis with self-diagnosis, and earnestly tackle energy consumption problems caused by equipment. In 2019, a total of 39 generating units of the Company won awards in the national energy efficiency benchmarking and competition for thermal power units.

### 2019 National Energy Efficiency Benchmarking and Competition for Thermal Power Units

**AAAAA-class Units**

- No.4 Generating Unit of the Inner Mongolia Tuoketuo Power Generation Company
- No.10 Generating Unit of the Inner Mongolia Tuoketuo Power Generation Company
- No.2 Generating Unit of Wusha Mountain Power Company
- No.1 Generating Unit of Harbin No.1 Thermal Power Plant, Heilongjiang
- No.1 Generating Unit of Hebei Wu'an Power Generation Company
- No.2 Generating Unit of Jixi No.2 Thermal Power Company, Heilongjiang

**Excellent Units for Low Energy Consumption for Electricity Generation**

- No.10 Generating Unit of the Inner Mongolia Tuoketuo Power Generation Company
- No.10 Generating Unit of the Inner Mongolia Tuoketuo Power Generation Company
- No.2 Generating Unit of Jixi No.2 Thermal Power Company, Heilongjiang

**Excellent Units for Low Power Consumption Rate of the Power Plant**

- No.8 Generating Unit of the Inner Mongolia Tuoketuo Power Generation Company
- No.2 Generating Unit of Hebei Wu'an Power Generation Company
- No.2 Generating Unit of Harbin No.1 Thermal Power Plant, Heilongjiang

### 2019 National Energy Efficiency Benchmarking and Competition for Thermal Power Units

**AAAAA-class Units**

- No.2 Generating Unit of Zhejiang Datang International Jiangshan City Thermal Power Company

### 2019 National Energy Efficiency Benchmarking and Competition for Thermal Power Units

**AAAAA-class Units**

- Fuxin Shijingao Wind Farm, Datang Liaoning New Energy Company
- Jiulong Mountain wind farm, Jiangxi Datang International New Energy Company
- Pinghu wind farm, Zhejiang Branch

# Legal Compliance

## Improving the Law-based Governance

### Establishing the mechanism of law-based governance.

We have incorporated law-based governance into the Company's articles of association, and steadily promoted the performance of the duties and responsibilities of top leaders as the principal persons liable for implementing the rule of law. By establishing a leading group for law-based governance, we comprehensively promote our work related to the rule of law and ensured that all tasks are carried out according to law.

### Enhancing the competence of the legal staff.

We have established a monthly legal training mechanism. In 2019, we cooperated with Tsinghua University School of Law and jointly held the 2019 Datang Power Legal Training Class. Supported by excellent teaching resources of the university, we explored intersections of legal theories and legal practice, motivated our legal staff to acquire more legal knowledge, and built up a talent pool for advancing law-based governance.



The 2019 Datang Power Legal Training Class

## Strengthen the Control of Internal Risks

**Carrying out comprehensive risk assessment.** In line with the principle of centralized, layered, and classified management of risk identification and control, we carried out comprehensive risk assessment on the 189 key management indicators of the risk management framework in 2019.

**Completing the prevention and elimination of major risks.** In accordance with the requirements stipulated in the *Notice on Preventing and Eliminating Major Risks in 2019 of China Datang Corporation*, we organized all grassroots enterprises to clarify their prevention and control objectives and perform their risk prevention and control, so as to avoid

major risks. By strengthening the follow-up analyses of major risks assessment and dynamic risk monitoring, we guaranteed that all major risks were controllable.

### Carrying out the annual audit of internal controls.

According to the requirements of the *Basic Norms for the Internal Control of Enterprises* and *Guidelines for the Audit of the Internal Control of Enterprises* jointly issued by the five ministries and commissions, including the Ministry of Finance and China Securities Regulatory Commission, We hired an accounting firm to audit the effectiveness of the internal control over the financial report and issue an internal control audit report in 2019.

## Conducting Standard Operation

**Improving the governance mechanism.** We have improved the process management of the shareholder meeting, Board of Directors, and Board of Supervisors as well as the approval procedures for meetings, thus guaranteeing the legal implementation of all procedures. In 2019, we held three shareholder meetings, 11 board meetings, 8 meetings of the Board of Supervisors, and 11 meetings of the special committees of the Board of Directors.

**Improving the investor relations management.** We disclose the business performance of the Company regularly and conduct performance roadshows and daily investor reception earnestly. To improve the market value management of Datang Power constantly, we pay much attention to communication and cooperation with our shareholders, provide feedback to proposals put forward on meetings of the Board of Directors, which facilitates the smooth review and approval of various

proposals and creates a good external environment for the Company's development.

**Strengthening information disclosure.** To adapt to the new situations and requirements about strict supervision, we actively carry out information disclosure to ensure the fulfillment of information disclosure obligations according to law. We have taken a series of measures, such as deepening the study of the requirements on information disclosure, controlling the review and approval of information disclosure procedures, and improving the efficiency of information disclosure, in order to ensure high-quality information disclosure to external stakeholders. In 2019, we released approximately 260 Chinese and English announcements in China and overseas, all of which were in compliance with the information disclosure rules of the regions where it was listed.

## Comprehensively Ensure Full and Strict Governance over the Party

We comprehensively ensured full and strict governance over the Party, resolutely implemented the eight-point frugality code, took firm action to address formalism, bureaucratism, hedonism, and extravagance, improved Party conduct, cracked down on corruption at all times, and rectified prominent problems including formalities and bureaucratism with determination. We focused on rectifying problems that had been spotted during inspections since the 18th CPC National Congress, and promoted the full coverage of inspections in an orderly manner, striving to create a clean and upright political ecology.

### Tighten up on accountability for overseeing discipline compliance.

According to *Disciplinary Regulations of Communist Party of China and Regulations Regarding Intra-Party Supervision*, we formed a preliminary supervision and discipline inspection network supported by across-the-board coordination to resolutely investigate and punish any violations against Party rules and disciplines. We also complied with the laws and regulations relating to prevention of extortion, fraud and money laundering, such as *Anti-Money Laundering Law of the People's Republic of China and Criminal Law of the People's Republic of China*. In order to improve daily supervision and implement the responsibilities of the commission for discipline inspection, we published the *Implementation of the list of responsibilities for supervision over comprehensively and strictly governing the party and the Implementation opinions on strengthening supervision responsibilities*. We have established a working mechanism for centralized management and collective analysis and investigation of clues, and realized 100% handling of petitions and initial verification of clues in 2019.

### Promoting clean governance.

We vigorously promoted warning education and compiled the *Collection of Cautionary Disciplinary Inspection and Supervision Cases* with over 20 cases of violations, further deepening the training and education on anti-corruption. In 2019, we organized 185 special counseling and education sessions on the Regulation of the Communist Party of China on Disciplinary Actions, Regulations on Integrity Management of Leaders of State-Owned Enterprises and so on, with more than 12,700 participants.



Liaoning Datang International Shendong Thermal Power Company visits the Anti-corruption Education Base of Liaoning.



# Innovation driven

## Creating the Momentum for Innovation

Technological innovation is an important way to stimulate energy for corporate development. Datang Power insists on the path of technological innovation by integrating technological innovation into corporate development and building the team of technological personnel. In addition, the Company enhances the transformation of innovation achievements and vigorously promotes an innovation-driven company, which effectively empowers socio-economic development.





# Culture of Innovation

We constantly improve the three-tiered (namely headquarters - specialized companies and regional companies - grassroots enterprises) technology management system, and strive to create a first-class technological R&D platform to improve our technological innovation capability by developing a culture of innovation and implementing technological innovation requirements. In 2019, we invested over RMB 143.75 million in science and technology, up by 45.3% as compared with last year, revised 17 standards at the industry level or higher levels, led or participated in 29 award-winning projects, and undertook 29 major technological programs.

Awards	Number of projects
China Power Technological Advance Award	3
Energy Innovation Award	5
China Power Innovation Award	21



2019 invested over  
**RMB 143.75** million  
 in science and technology

**Case** Wusha Mountain Power Co., Ltd. conducts research jointly with Zhejiang Electric Power Institute to improve the safety level of generating units of thermal plants

The Innovation of Standards for the Distributed Control System in Thermal Power Plants, the joint research of Wusha Mountain Power Co., Ltd. and Zhejiang Electric Power Institute, won the first prize of the 2019 China Power Technology Innovation Award. The research result not only provides guidelines for the maintenance, testing, operation, energy saving and emission reduction work of thermal power plants, but also helps improve the safety level of thermal power generating units in terms of equipment reliability, standardized maintenance and operation, and strong emergency response capabilities of the staff, etc.



Employees of the thermal control room of Inner Mongolia Tuoketuo Power Generation Company research on the optimization of the operation of generating units and lean management.

# Innovation Teams

We attach great importance to the innovative teams. By establishing an innovation team management system and developing the strategy and development plan of empowering a strong company with talents, we constantly unleash the innovation potential of the Company. In 2018, a total of 34 staff innovation workshops were named by Datang Power.



The Zheng Yu Labor Model Innovation Studio of Chongqing Pengshui Hydropower Company cultivates skilled employees through examination and maintenance classes and mentoring programs

# Transformation of Technological Achievements

We attach great importance to the transformation of technological achievements. The existing technological achievements have been sorted out and will be further applied in production and solve technological bottlenecks, so as to form a virtuous circle of innovation. In 2019, we obtained 274 patents in total.

	2015	2016	2017	2018	2019
Number of patents	272	215	186	287	274

**Case** Launching a partnership to jointly release an intelligent fire warning and disposal system

Chongqing Keyuan Energy Technology Development Co., Ltd. and Chongqing Three Gorges University launched a partnership to jointly release an intelligent fire warning and disposal system. The system can be used for fire detection, intelligent alarming, and putting out a fire at one click, and thus can be widely used by SMEs, enterprises with the factory, warehouse and dormitory in the same building, and various types of small businesses. By applying state-of-the-art technologies, including IoT, cloud computing, and big data, the system can intelligently sense, identify, locate, and track the status of fire facilities, realize the connectivity of devices and facilities with humans, and provide strong information support for fire prevention and supervision as well as firefighting and rescue. The system can also realize closed-loop management of humans, incidents and facilities. It provides a comprehensive supervision mechanism and can manage the daily work of maintenance service providers and security personnel, achieving all-round fire management.



Chongqing Keyuan Energy Technology Development Co., Ltd. displayed its intelligent fire warning and disposal system at 2019 Smart China Expo.





### Case "Internet Plus" - Innovation and practice of the three major gas turbine centers

The three major gas turbine centers of Beijing Gaojing Cogeneration Power Plant, namely Beijing International Power Data Monitoring and Diagnosis Center, Beijing International Gas Turbine Maintenance Center, and Beijing International Clean Energy Power Generation Training Center, have guaranteed full-lifecycle management of the Company's gas turbines, eliminated barriers between different regions, industries, and enterprises, and provided new solutions and experiences for the production and operation of the energy industry of China. In 2019, Beijing International Power Data Monitoring and Diagnosis Center realized management of 13 generating units of six power plants and monitored 4,450.8 MW of capacity, Beijing International Clean Energy Power Generation Training Center launched 40 training sessions which were participated by 300 trainees, and Beijing International Gas Turbine Maintenance Center has established a team of 15 members that masters Grade-B maintenance technique of 9F gas turbines.

Project Name	Award	Awarding Organization
Construction of Exponential Organizations Based on Cloud Monitoring and Diagnosis Services and Innovation Practices	First prize of China Power Innovation Award (Management) 2019	China Electricity Council
Fusion and Application of Fault Early Warning and Performance Optimization of Gas Turbine Groups Based on Intelligent Models	Three-star Outstanding Achievement in Innovative Management of Power Plant Equipment (First Prize)	China Electricity Technology Market Association
Fusion and Application of the Monitoring and Diagnosis of Gas Turbine Groups Based on Machine Learning and Physical Models and Algorithms	Achievement in Innovative Equipment Management of China 2019	China Association of Plant Engineering
Research and Practice of the Monitoring and Diagnosis of Gas Turbine Groups Based on New Information Technology	First prize of Electric Power Innovation Award (Information Technology) 2018	China Electricity Council
Innovation and Practice of the Industrial Internet + Three Major Gas Turbine Centers	Second Prize of Golden Bridge Award of the Power Industry	China Electricity Technology Market Association

Awards won by the three major gas turbine centers of Beijing Gaojing Cogeneration Power Plant



#### Beijing International Power Data Monitoring and Diagnosis Center

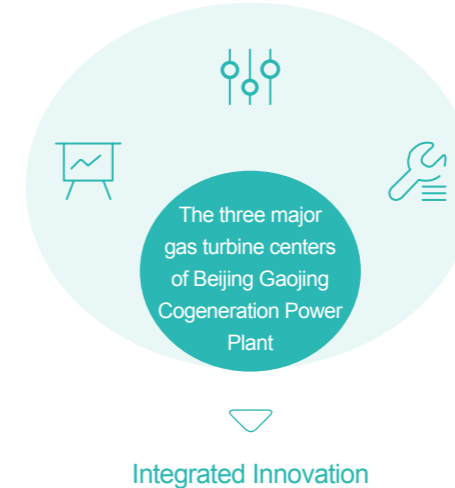
- By collecting, monitoring, analyzing, and diagnosing the operation data of gas turbine generating unit groups, Beijing International Power Data Monitoring and Diagnosis Center promotes the mixed application of Internet Plus and big data technologies to provide suggestions on fault early warning, expert diagnosis, troubleshooting, thermal efficiency analysis and optimization, thus effectively preventing accidents.
- As of October 2019, the center handled 6,844 early warnings of the smart signal system, monitored and diagnosed 370 early warnings with an average accuracy rate of 69.1% and a case accuracy rate near 70%.

#### Beijing International Clean Energy Power Generation Training Center

- Beijing International Clean Energy Power Generation Training Center combines theoretical knowledge with practice by multimedia teaching, simulation, and practice and other methods, aiming to improve the training effect and thus cultivate highly skilled experts in the field of gas turbines and Chinese craftsmen with gas turbine-related skills.
- In 2019, the training center launched various training courses to foster an internal trainer team. The center improved the curriculum and training processes, and set up training rooms and multimedia classrooms covering gas turbine maintenance and control, electrical and excitation practice, aiming to improve the training effect.

#### Beijing International Gas Turbine Maintenance Center

- By learning maintenance management mechanisms for GE gas turbines and process-based management methods, Beijing International Gas Turbine Maintenance Center has established a world-class gas turbine and clean power generation maintenance service system integrating overhaul, maintenance, and training to improve the economic and social benefits of maintenance services.
- In 2019, the maintenance center continued to cooperate with GE and participated in the replacement of the first-stage moving blades of No.1 and No.2 gas turbines of Beijing Gaojing Cogeneration Power Plant. The maintenance center has obtained the ability to independently complete the C-Grade maintenance of GE gas turbines.



IoT, Big data, AI, Machine Learning



Traditional Power Generation Technologies





**Eco  
friendly**

## Building a Green China

A good ecology contains the endless economic value, and can continuously create comprehensive benefits and contribute to sustainable socio-economic development. Adhering to green development, Datang Power continuously improves environmental management, carbon management, and the transformation towards ultra-low emissions, striving to realize the harmonious coexistence of the Company and the nature.





# Environmental Management

We continue to improve the Company's environmental management and organizational systems. To reduce the environmental impact of the Company's production and operation, we dispose of solid and hazardous wastes in strict accordance with related standards and carry out carbon asset management.

## Environmental Risks Management

In response to new national environmental requirements, we specially set up the Safety and Environmental Protection Supervision Department to strengthen the environmental protection supervision. At the same time, we strictly implement provisions of the Administrative Measures for the Investigation and Disposal of Environmental Incidents issued by the China Datang Corporation about administrative and economic penalties for the extremely severe, severe, large and general environmental incidents.

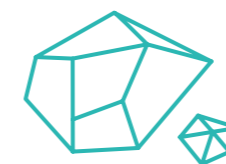
- Implement national policies, laws and regulations, industry regulations and standards, and China Datang Corporation's decisions and arrangements on ecological environmental protection
- Formulate corporate rules and regulations on the supervision and management of ecological environmental protection, and supervise the implementation
- Determine the goals for the Company's annual appraisal of environmental incidents, determine the appraisal index of environmental incidents of all subsidiaries, and supervise their analysis and implementation of the targets and offer opinions on the appraisal
- Supervise all subsidiaries to ensure that their mechanisms on the risk management of ecological environmental protection as well as mechanisms on the investigation and governance of hazards operate effectively, and make major environmental protection issues to be listed for investigation and supervision; supervise subsidiaries at all levels to establish and implement the supervision system
- Supervise the management of environmental impact appraisal in the early stage of project construction and guarantee simultaneous design, construction and production; supervise acceptance inspections related to environmental and water protection.

### Case Hebei Wangtan Power Generation Company eliminates environmental risks in time to welcome the environmental protection inspection

Hebei Wangtan Power Generation Company spots and eliminates defects of environmental protection equipment in a timely manner and can keep the status of facilities under control. Emissions of the main pollutants of the company meet the standards for ultra-low emissions. In 2019, the company accepted eight environmental protection inspections by the Ministry of Ecology and Environment and five environmental protection inspections by the provincial department of ecology and environment. No environmental protection or public opinion incidents occurred throughout the year.

## Rigorous Waste Treatment

All subsidiaries of Datang Power conduct standardized management of solid and hazardous waste treatment throughout the whole process. We have compiled solid waste and hazardous waste management systems in accordance with related laws and regulations, such as the Solid Waste Pollution Prevention and Control Law of the People's Republic of China and the National Inventory of Hazardous Wastes, and conduct strict management of solid and hazardous wastes in accordance with these systems.



2019 the Company achieved fly ash

**31.6518** million tons

2019 the Company achieved a comprehensive utilization rate

**60.33** %

### Case Hebei Tangshan Thermal Power Company takes various measures to improve the efficiency of waste management

Hebei Tangshan Thermal Power Company has continued to strengthen hazardous waste management. The company has developed ledger management of waste oil warehouses and plans for waste oil leakage emergency drills and organized special drills. The management plan and monthly reports have been filled in the solid waste management system in time and hazardous waste is transferred in accordance with laws and regulations. It also prohibits vehicles falling short of the national IV emission standard from transporting coal, limestone, plaster and ash, and organizes employee training programs on hazardous waste management to improve employees' hazardous waste management capabilities. In 2019, the company achieved comprehensive utilization of 70,000 tons of plaster and 400,000 tons of slag.



# Emission Reduction

In strict compliance with the *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution* and other laws and regulations, we implement the requirements of the *Action Plan of Energy Saving, Emission Reduction, Upgrading and Retrofitting of Coal-fired Power Plants (2014 - 2020)*, tighten emission standards. To effectively respond to climate change, we have gradually enhanced carbon management by exploring low-carbon development strategies and building a carbon asset management system. All thermal power companies of Datang Power completed the submission of carbon emissions reports in 2018 and conducted third-party verifications in accordance with the national carbon emission verification requirements.

In 2019, the total CO<sub>2</sub> emissions amounted to 198.53 million tons with 198.45 million tons of direct emissions and 80,000 tons of indirect emissions. CO<sub>2</sub> emission ratio reached 768.5g/KWh. The total SO<sub>2</sub>, NO<sub>x</sub>, and dust emissions amounted to 14,930 tons, 26,320 tons and 2,750 tons respectively. The total discharge of wastewater was 5.20769 million tons.



In 2019, Datang Power completed the ultra-low carbon emission transformation of **107** coal-fired generating units of thermal power plants in operation which have a total capacity of **46,854** MW

The Rooftop photovoltaic project of Zhejiang Datang International Shaoxing Jiangbin Thermal Power Company has an installed capacity of 1MW. After put into operation, the project will effectively lower the power consumption rate of the power plant, save 268.1 tons of standard coal, reduce CO<sub>2</sub> emissions by 715.5 tons, SO<sub>2</sub> emissions by 5.45 tons, and NO<sub>x</sub> emissions by 1.85 tons.



Generating Unit 1 of the Newly-built "Replacing Small Capacity Units with Large Capacity Ones" Coal Transportation System EPC General Contracting Engineering Contract of Guangdong Datang International Leizhou Power Plant passed the 168-hour trial run on December 7, 2019. In the first phase of the project, two 1000MW ultra-supercritical double-reheating coal-fired generating units were constructed, which are the first units in China to adopt the 1500T screw coal unloader and the one-million double-reheating boiler. After put into operation, the units will consume only 265.91g of coal for per kWh of electricity generated under rated operating conditions. Compared with high-efficiency single-reheating units with the same capacity, the double-reheating units can save about 74,800 tons of coal and reduce emissions of CO<sub>2</sub> by about 206,000 tons and SO<sub>2</sub> by 23.3 tons per year. In addition, the project is supported by an internationally advanced flue gas treatment system, fully enclosed ash and slag removal facilities, and an industrial wastewater treatment system. With the largest screw coal unloader in China, a fully enclosed coal yard and coal conveyor belts, the project can effectively avoid generating dust during coal unloading and meet domestically leading environmental standards.

Quality oriented

Efficiency oriented

Innovation driven

Eco friendly

CSR minded



# Ecological Environment

The ecological environment is the foundation of survival and sustainable development. Well recognizing that to promote ecological progress and build a beautiful China is an important responsibility of Datang Power, we endeavor to integrate ecological protection into our production and operation and strive to be a promoter and practitioner of ecological civilization for more contribution to the bluer sky, greener mountains, and clearer waters.

## Comprehensive Environmental Management



Inner Mongolia Tuoketuo Power Generation Company innovatively launched the Kulve Tugou small basin comprehensive environmental management project, of which the management station of the packing field and the fly ash unloading station passed the acceptance inspection and put into operation on August 17, 2019. By filling trenches and covering the land surface with fly ash generated by Tuoketuo Power Generation Company and planting trees and grass in trenches, the project can greatly improve the natural environment of Kulve Tugou and improve the living standard of the local people.

## Fish Fry Releasing



Chongqing Pengshui Hydropower Company carried out fry releasing activities in the upstream and downstream reservoir areas of Pengshui Hydropower Station, Yinpan Hydropower Station and Yanhe reservoir areas of Guizhou province, and released a total of 450,000 fish fry of 5 endangered species. By the end of 2019, the company had conducted fish fry releasing activities for ten consecutive years, and released a total of 4.64 million fish fry of *Myxocyprinus asiaticus*, *Procypris rabaudis*, *Sinilabeo rendahli* and other species, effectively protecting the diversity of fish species in the Wujiang River Basin.



Chongqing Pengshui Hydropower Company release fish fry

## Dust Reduction



Tongzhou Technology Company Limited, relying on its familiarity with power production and the market as well as its connectivity with players of different regions, changed multiple unfavorable conditions of the power generation sector, including the comprehensive utilization of solid waste by individual companies, fierce competition within a region and waste of ash yard resources. The company won the 2019 Excellent Enterprise Award for Fly Ash Comprehensive Utilization in China.

## Environmental Awareness Enhancement



At the beginning of each year, Inner Mongolia Datang International Renewable Resources Development Co., Ltd. sets an environmental protection training plan. Taking the Environmental Protection Consultation Day and the Safety Day campaigns as opportunities, the company conducts special environmental protection training programs focusing on environmental protection laws and regulations, corporate rules on environmental protection management, and contingency plans to enhance employees' environmental awareness.



Kulve Tugou small basin comprehensive environmental management project



# CSR minded

## Sharing a Better Life

Community engagement and support are indispensable factors for companies to realize sustainable development, and in turn, community development is guaranteed by contributions of companies. Datang Power sincerely safeguards the rights and interests of employees and values the growth and success of employees. It earnestly undertakes the responsibility of as a central SOE to fight against poverty and contribute to a harmonious community.





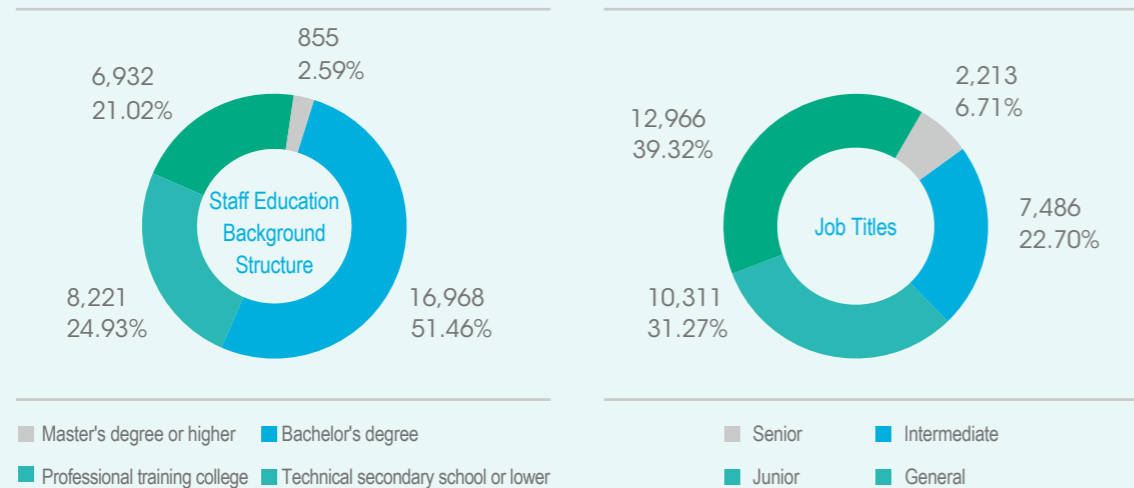
# Employees Growth

Adhering to the “people-oriented” philosophy, we safeguard employees’ rights and interests, care for their health, help them solve problems and make them grow. With such efforts, we have continued to enhance employees’ happiness and sense of gain and security.

## Rights and Interests

We regard employees as the core for high-quality development of the Company. In strict compliance with the *Labor Law of the People’s Republic of China*, the *Labor Contract Law of the People’s Republic of China* and *Regulations on Standardized Employment of Datang Power*, we ensure 100 % coverage of labor contracts according to law. We recruit employees in strict compliance with the principle of equality, and prohibit gender and racial discriminations as well as child labor and forced labor. We have taken steps to improve the democratic management system and sincerely listened to employees’ suggestions and opinions through our workers’ congress system and trade union system, which facilitate us share the fate of employees and connect closely with employees, thus ensuring employees’ right to know, participate, express, and supervise. By the end of 2019, we had 32,976 employees, with 6,248 women employees and 1,492 ethnic minority employees. Both the contract signing rate and trade union membership rate of the Company reached 100%.

Based on the principle that Women and men enjoy equal pay for equal work, we have formulated the *Administrative Measures for Salary Allocation* to improve the performance appraisal system, and further play the role of salaries as incentives. We pay for employees’ housing funds and social insurance on time and in full, and have established a corporate annuity and supplementary medical insurance system to better safeguard their benefits. In 2019, the social insurance coverage rate of the Company was 100%.



# Health and Safety

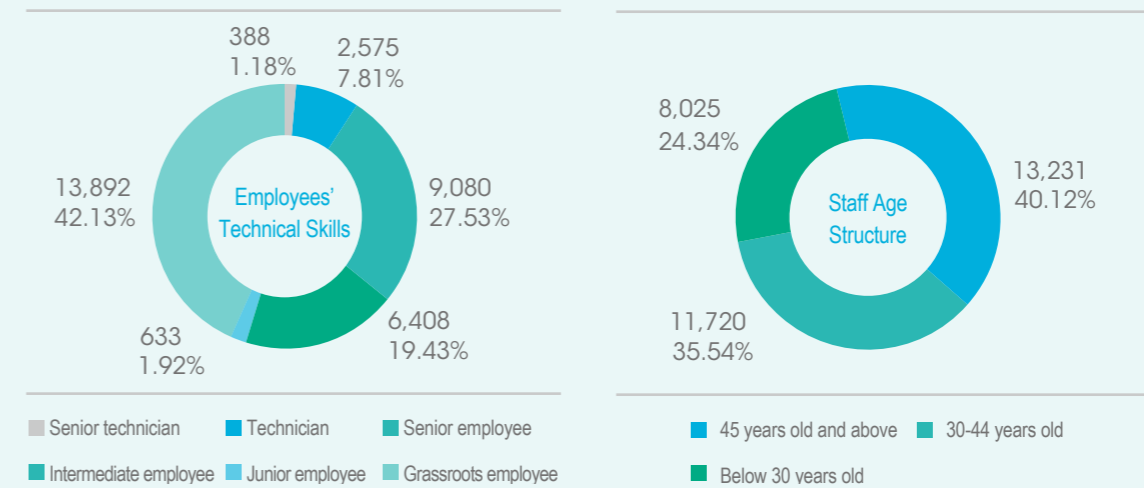
Attaching great importance to the physical and mental health of employees, we have improved the working environment and safety and health facilities of the Company according to the *Work Safety Law of the People’s Republic of China* and other related laws and regulations. We conduct regular monitoring of occupational hazards such as noise and dust, and provide employees with protective supplies and emergency rescue devices. To optimize the occupational health and safety management system, we also organize regular physical examinations of occupational diseases among employees and launch first aid trainings to improve employees’ safety awareness. In 2019, the coverage of physical examinations for employees reached 100%.

## Case “Employee-oriented” Occupational Health Lecture

To ensure the healthy mindset of employees, Chongqing Branch organized the “Employee-oriented” Occupational Health Lecture and specially invited a professor from the Psychological Health and Counseling Center of Chongqing University to give a speech. The lively lecture taught employees to release their pressure and control their emotion, and provided practical and effective suggestions for employees to adjust their psychological pressure. It helped improve employees’ health awareness and emotion management capability.



Heilongjiang Jixi No.1 Thermal Power Company organized Occupational Health Lecture







Heilongjiang Power Generation Company organizes the Datang Cup Occupational Skill Competition

## Training and Development

We provide diversified training methods for employees to foster a talent team and stimulate employees. We have fully stimulated our employees, strengthened team building and provided multiple growth channels. More employee trainings are provided to improve the technical skills of employees, and the training and examination management system is improved with richer content for the "online learning media library. We also organize and participate in a wide range of professional skill competitions to boost employee training. In 2019, we invested RMB 66.28 million in employee training, organized 12,892 professional training programs with 671,453 participants, among which, 189,652 participants focused on corporate management and professional skill training, 457,743 participants focused on production skill training, and 24,058 participants focused on other training.

We have built a multi-channel growth mechanism for employees and continuously broadened such channels for better employee growth. We select outstanding young cadres and improve talent evaluation and expert management to build a high-quality, professional talent team. In 2019, a total of 77 employees of Datang Power passed the senior professional and technical qualification of China Datang Corporation, accounting for 27.6%.

### Case Training package helps new staff integrate into the company

To help new staff quickly grow into new forces for corporate development, Guangdong Chaozhou Power Generation Company elaborately prepared and provided a "training package" for new staff covering the development history of the company, corporate culture, corporate rules and regulations, career planning, and production processes. The training was carried out supported by training materials, video watching, and lectures, laying a solid foundation for new staff to adapt to their new positions. At the same time, to improve their emergency response, self-rescue and mutual rescue capabilities, the company provided courses on firefighting drills, electric shock first aid and cardiopulmonary resuscitation training, which helped enhance employees' safety awareness.



were awarded the title of Pioneers of the Power Industry

**2** employees

were awarded the title of Practitioners of the Power Industry with Outstanding Skills

**4** employees

were named Group Company-level Technical Experts

**29** employees

were awarded the title of Technical Experts in Power Industry

**8** employees

special group prizes and 1 first prize were won in the skill competition of China Datang Corporation

**2**

were named Group Company-level Excellent Skilled Employee

**57** employees

## Work-life Balance

Valuing the needs of employees, we organized various cultural and sports activities with distinctive characteristics to guide employees to pursue healthier ways of working and living. We gave special care to retired and female employees, assisted employees with difficulties, and helped employees solve problems in work and life. In 2019, we assisted 950 employees with difficulties in work and life, paid 153,600 visits to employees, and distributed more than RMB 31.6061 million of solatium and gifts.

### Case The Matchmaking Workshop helps employees build up romantic relations

Li Liqin from Fujian Ningde Power Generation Company took the lead in setting up the Li Liqin Matchmaking Workshop to help single young employees build up romantic relations and solve difficulties. The workshop has continuously lifted employees' spirit and promoted unity and stability. By the end of 2019, a total of 21 single employees found their date, and the workshop was named an annual major project by the Fujian Provincial Trade Union and received special funding support.

Zongzi making activity of Chongqing Branch on the Dragon Boat Festival



Riddle solving activity of Hebei Wu'an Power Generation Company



Fujian Ningde Power Generation Company and Ningde Hospital organize a networking activity.

Hebei Qingyuan Thermal Power Company organizes the "Datang Stays with You" outbound activity for employees.



# Promoting Communication and Exchange

We emphasize interaction and communication with stakeholders, and encourage stakeholders to participate in corporate operations and management. During the Enterprise Open Day campaign, we invite residents of the surrounding neighborhoods, media friends, retired employees and other stakeholder representatives to visit the Company. The hydropower, thermal power and wind power companies as well as non-power companies, including coal mines and environmental protection organizations, are open to the public so that the responsible corporate image and brand can be felt. As of the end of 2019, we had held the Enterprise Open Day campaign for 13 consecutive years.

## Case The 13th Enterprise Open Day

### Inner Mongolia Tuoketuo Power Generation Company

The company launched the Enterprise Open Day campaign and invited more than 140 teachers and students from the industrial park and Togtoh No. 1 Middle School. They visited the company along the planned route, including the publicity board, training center, and the fifth-phase centralized control room. Visitors learn about the company's work related to work safety, management, Party building and so on. The campaign received wide acclaim of visitors, enhanced the communication between the company and the public, created a good atmosphere for corporate development.

"When I grow up, I hope to become a member of Datang Power and contribute my power to the prosperity of my motherland."

—Xiaohui, a freshman from Togtoh No.1 High School

### Tianjin Panshan Power Generation Company

Tianjin Panshan Power Generation Company was open to the society and received a delegation of more than 40 visitors from government departments and the media as well as customers and family members of employees for an "experience-based green power journey". The company combined online and offline resources to launch an interactive live streaming activity simultaneously on Weibo.

"The Enterprise Open Day of Datang Power made us truly feel China's achievements since its founding 70 years ago. In particular, I really want to thumb for Panshan Power Company, as I witnessed its development in the past years."

—Ms. Zhang, a retired teacher

The Enterprise Open Day activity of Inner Mongolia Tuoketuo Power Generation Company



The Enterprise Open Day activity of Anhui Branch



A guide from Liaoning Huludao Thermal Power Company, introduces knowledge about thermal sources.



# Targeting Poverty Alleviation

We earnestly implement the President Xi's instruction on winning the battle against poverty and the major decisions and arrangements of the CPC Central Committee. To realize the goal that rural poor people are free from worries over food and clothing and have access to compulsory education, basic medical services and safe housing, we adhere to problem-oriented, goal-oriented and result-oriented practices, and strengthen our organizational leadership and efforts in poverty alleviation, so as to truly solve the practical problems faced by the poor. In 2019, the Company carried out 44 poverty alleviation projects, donated RMB 24.437 million to targeted poor people and lifted 1,761 registered low-income people from 820 households out of poverty.

- We pay particular attention to helping people increase confidence in their own ability to lift themselves out of poverty and see that they can access the education they need to do so.
- Taking targeted and differentiated measures and relying on industry development, we change our goal from simply providing financial support to enabling them to get out of poverty by self-development
- We also train poverty alleviation officials and enhance management of poverty alleviation working groups so as to improve the working mechanisms for better poverty alleviation efficiency.
- We have deepened poverty alleviation publicity and actively communicated related policies and guidelines to poor households.
- All regulations about donation management of the Company guarantee that our poverty alleviation funds are earmarked for the specified purpose only.

## Case Helping people increase confidence in their own ability

Baijiagong Village is located in Chande Township, Quyang County, Baoding City, Hebei Province. Most of the villagers are migrant workers or involved in traditional farming. The local area has a large population and relatively little land, and the infrastructure is very weak. Since 2016, Hebei Matou Thermal Power Company has sent a targeted poverty alleviation working group composed of three outstanding middle-level officials to work in this village and help it solve difficulties. The working group has communicated poverty alleviation policies to the villagers actively, promoted the renovation of infrastructure such as high-voltage cables and irrigation facilities, and helped villagers solve problems affecting farming, production, and family income. They also funded the school to change desks and air conditioners for a better environment. 2019, the Organization Department of the Hebei Provincial Party Committee and the Hebei Provincial Poverty Alleviation Office jointly issued a document commending Datang Power's working group in Baijiagong Village and the outstanding official Wang Feibang .

“Our villagers will have a great harvest this year, and we look forward to a brighter future.”

——Bai Zhannian, Village Party Branch Secretary

## Case Datang Ecological Organic Tea Garden contributes to the high-quality development of the tea sector in Fuding City.

Based on the results of several field trips to Dongyang Village, Fujian Branch developed the poverty alleviation approach to building the Datang Ecological Organic Tea Garden on the collective land of the village. To fully tap the potential of the garden, the company strengthened the supervision and management of the garden in accordance with related standards for organic products and continuously improved tea quality. The company keeps strengthening its efforts in branding and quality assurance and strives to build the Datang Ecological Organic Tea brand and make the tea garden a demonstration project for clean governance and value creation. Remarkable poverty alleviation achievements have been made and the project has been highly praised by the municipal government of Fuding.

Datang Ecological Organic Tea Garden is a sustainable and mutually beneficial project. Its great achievement has been demonstrated. We should learn from Datang Power.”

——Secretary of the Fuding Municipal Committee of the CPC

## Case Providing financial support for university students by a volunteer activity

Hebei Zhangjiakou Thermal Power Company initiated donations to the poor students for the second year. Over the past two years, volunteers from the company donated a total of RMB 11,020 to cover the tuition and living expenses of students from poor families. The brand image of “responsibility, strength and trustworthiness” has been highly praised by the municipal government. The donation program has been highly praised by the municipal government, and it shows the brand image of Datang Power as a “responsible, competent and reliable” company.

Hebei Zhangjiakou Power Plant organizes a free clinic activity



Hebei Baoding Thermal Power Plant organizes young volunteers to distribute electroprobes among local residents and promote basic safety rules about electricity.



Volunteers of Anhui Huainan Luohe Power Plant in Anhui Province provide partner assistance for Xugang Elementary School.



## Contribution to the Society

We take the initiative to undertake social responsibility. By organizing various public welfare activities and encouraging employees to participate in volunteer and charitable activities, we have boosted the harmonious development of communities.



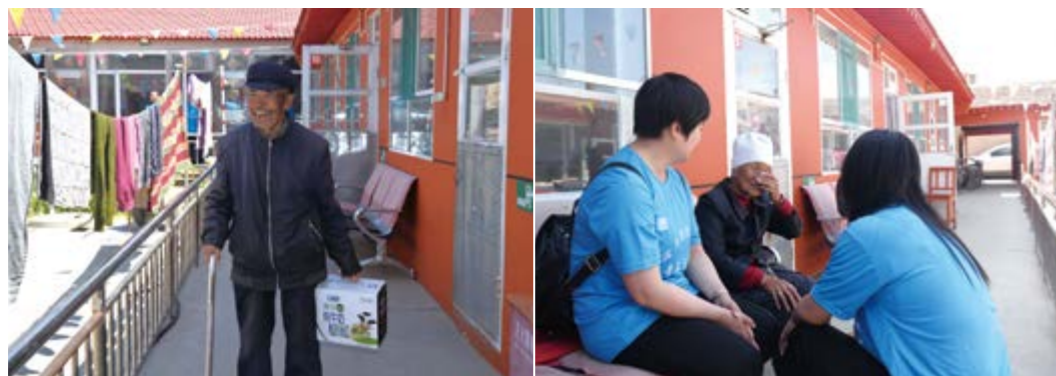
Liaoning New Energy Company launches the Datang Morning Star Classroom campaign.



Hebei Douhe Power Plant organized the Datang Morning Star Classroom campaign at Guma Elementary School in Luanzhou City for the sixth consecutive years.

### Case Youth Volunteer Service Day stimulates employees' enthusiasm for social undertakings

To further promote the volunteer spirit and raise young employees' sense of responsibility and dedication, the Youth League Committee of Inner Mongolia International Renewable Resources Development Company organized various forms of youth volunteer services among employees. Volunteers visited and brought gifts to the elderly care center of Tuoketuo County and visited the former residence of Ulanhu to experience the selfless dedication of the revolutionary ancestors and relearn the Party history, get enlightened. They also went to help clean up the Hasuhai Scenic Area. These volunteer activities facilitated a harmonious company and a civilized city, stimulated the enthusiasm of young employees to "serve the company and contribute to the society", and effectively boosted employees' enthusiasm and initiative to participate in volunteer activities.



Young volunteers visit an elderly care center



Tianjin Panshan Power Generation Company organizes a book donation activity.



Chongqing Branch organizes the Datang Morning Star Classroom campaign at Zaiyu Elementary School.



Hebei Qingyuan Thermal Power Company organizes the Datang Morning Star Classroom campaign.



Hebei Baoding Thermal Power Company organizes the Datang Morning Star Classroom campaign.



# Outlook 2020

In 2020, We will earnestly undertake due responsibilities and work together to support the battle against. We will effort to control the epidemic and ensure well operation. We will adhere to the new development concepts, and strive to realize the all targets set for the "High Quality Development Year". We will earnestly promote quality and efficiency improvement, corporate reforms and development as well as technological innovation, enhance political and ideological development, and enhance corporate security and stability, so as to contribute to a decisive victory in building a moderately prosperous society in all respects and winning the three tough battles of preventing and defusing financial risks, targeted poverty alleviation and pollution control.

## Quality oriented

- Aligning with the new development concepts, we have focused on wind and solar power, natural gas and service sectors, and promoted high-quality corporate development.
- Continue to carry out special actions to improve quality and efficiency, and promote business development in stability
- Focus on significant coastal, maritime, and overseas areas as well as key regions of northeastern, northern, and northwestern China to accelerate the development of new energy sources
- Accelerate the pace of "Going Global" and be a pioneer in national markets along the Belt and Road

## Efficiency oriented

- We have guaranteed efficient epidemic prevention and control while keeping stable production and operation, ensured safe power generation and heat supply, and maintained stable business performance.
- Continue to improve the safety management mechanism and system and fix security breaches comprehensively to prevent all types of accidents
- Promote "SOE and Central SOE Reform" and try hard to lead the reform of SOEs
- Enhance corporate governance according to law and continuously reduce violations

## Innovation driven

- Adhere to innovation-driven development, and comprehensively strengthen innovation in technology, management and business models
- Improve the innovation-driven development system, strengthen partnerships in technological innovation, and promote the scientific spirit and craftsmanship

## Eco friendly

- Strengthen efforts in emission reduction through technological methods, lower energy consumption, and strive to become an industry leader in energy conservation and emission reduction
- Fight the tough battle to control and prevent pollution, strengthen emergency management of severely polluted weather, and control discharges of pollutants to constantly improve environmental protection work of the Company

## CSR minded

- Always being people-oriented, we have enhanced employee care and implemented effective epidemic prevention measures to ensure employee health and safety.
- Train young officials earnestly, establish a sound hierarchical structure, and improve the working mechanism
- Explore and implement the Talent Development Program to create smooth horizontal and vertical channels for the growth of talents
- Complete poverty alleviation missions assigned by the central government and show the great sense of responsibility of a central SOE

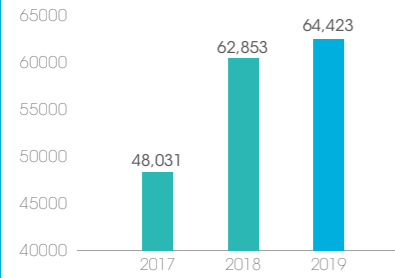




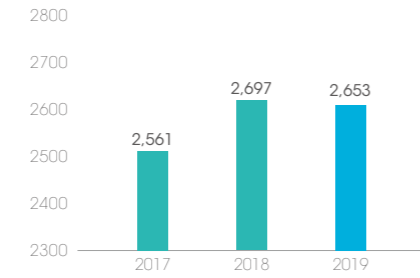
# Key Performance Indicators

## Economic

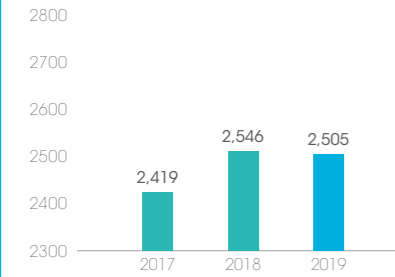
Total installed capacity (MW)



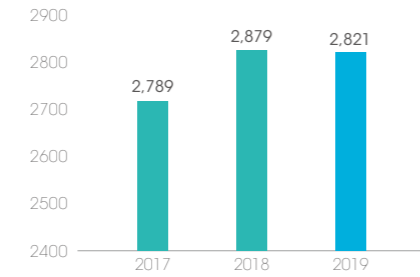
Electricity generation (100 million KWh)



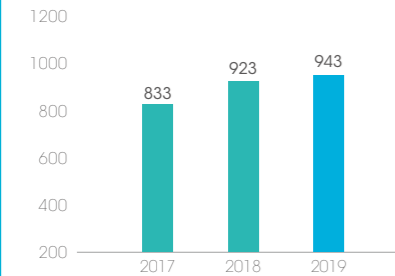
On-grid power (100 million KWh)



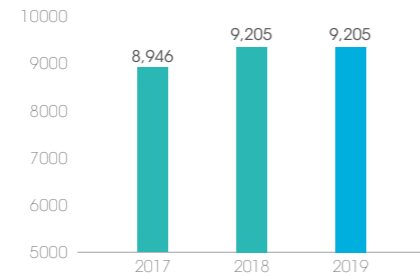
Total assets (100 million Yuan)



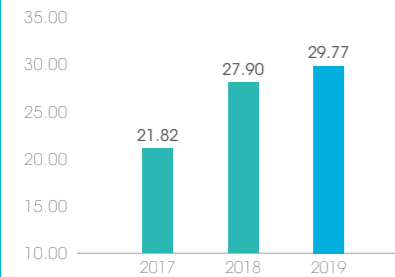
Revenue (100 million Yuan)



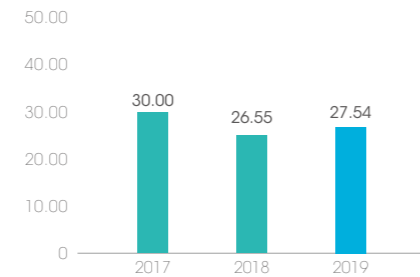
Installed hydropower capacity (MW)



Net profit (100 million Yuan)

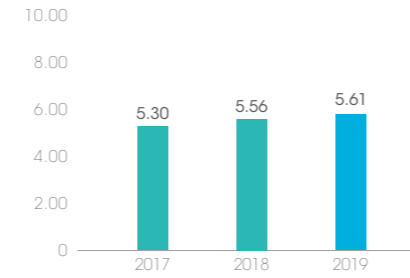


Proportion of clean and renewable energy (%)

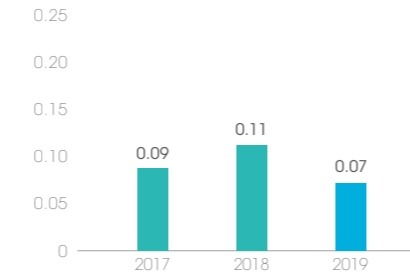


## Environmental

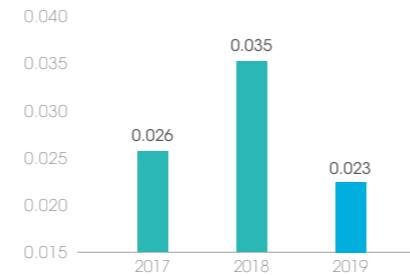
Comprehensive power consumption rate (%)



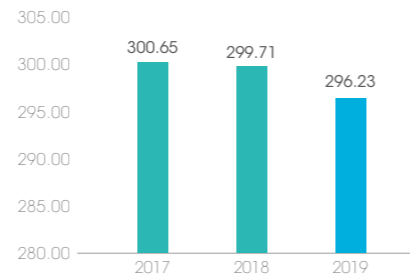
SO<sub>2</sub> emission rate (g/KWh)



Waste water emission rate (kg/KWh)

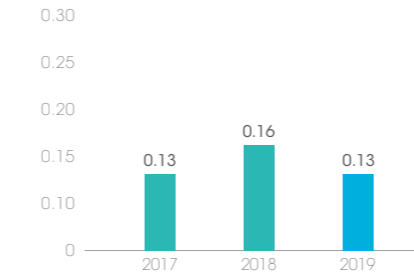


Power supply coal consumption (g of standard coal/KWh)

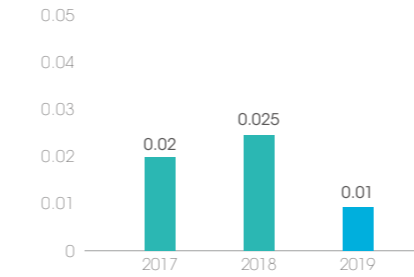


## Social

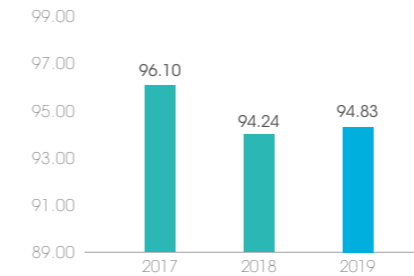
NO<sub>x</sub> emission rate (g/KWh)



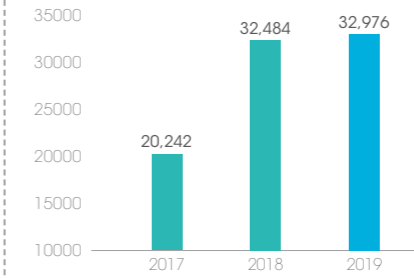
Dust emission rate (g/KWh)



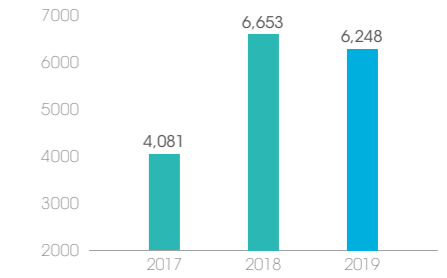
Availability coefficient of generating equipment (%)



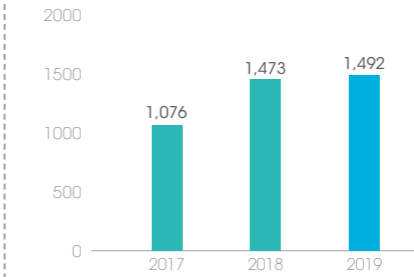
On-job employee (People)



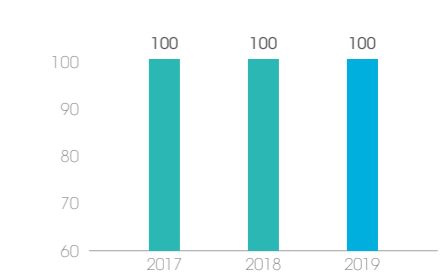
Number of female employee (People)



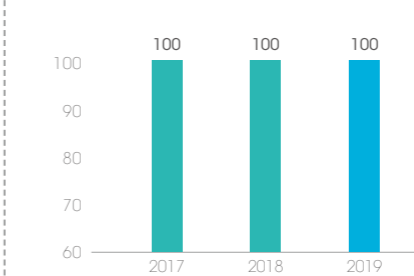
Number of minority employee (People)



Membership rate of employee (%)



Coverage of collective contract (%)



Note: In 2018, Datang Power purchased power generation assets in Hebei, Anhui and Heilongjiang provinces, which has caused significant changes in its performance as compared to the previous year.



# HKEX ESG Reporting Guide Index

	"Comply or explain" Provisions	Recommended Disclosures	Disclosure	Report position (Page)	Notes (Explanation on partial disclosure and no disclosure)
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	A1.2		√	46	
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	A1.4		√	45-46	
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	A1.6		√	45, 48-49	
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	A2.1		√	33	
	A2.2		√	33	
	A2.3		√	33	
	A2.4		√	33	In 2019, Datang Power did not encounter problems with sourcing water that is fit for daily business operations.
	A2.5				Power products do not need to consider packaging materials
Aspect A3: The Environmental and Natural Resources	General Disclosure		√	45-49	
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		B3.2			
Aspect B4: Labor Standard	General Disclosure		√	52	
		B4.1	√	53	
		B4.2	No violation		
Aspect B5: Supply Chain Management	General Disclosure		√	32	
		B5.1			
		B5.2	√	32	
Aspect B6: Product Responsibility	General Disclosure		√	30-31	Advertising, labeling, privacy issues and remedies do not apply to our company in accordance with Chinese laws
		B6.1			Power generation companies mainly guarantee the safe and reliable supply of electricity
		B6.2	No related situations		
		B6.3			
		B6.4			
		B6.5			Power generation companies do not have product verification and recall procedure
Aspect B7: Anti-corruption	General Disclosure		√	35	
		B7.1			
		B7.2	√	35	
Aspect B8: Community Investment	General Disclosure		√	18-19/58	
		B8.1	√	18-19/58-61	
		B8.2	√	18/58	



# Feedback

## Dear Readers

Thank you for taking time to read Datang Power's 2019 Social Responsibility Report (Environmental, Social and Governance Report). To improve our performance and our next report, we hope you can give us some feedback on the following aspects:

1. What is your overall impression of the Report?

Good  Poor  Fair

2. To what extent are your topics of interest addressed in the Report?

Good  Poor  Fair

3. How far has the Report revealed Datang Power's economic, environmental and social impact?

Good  Poor  Fair

4. How about the readability of the Report, especially in relation to conveniently finding your topics of interest?

Good  Poor  Fair

5. How is the layout of the Report?

Good  Poor  Fair

6. What kind of additional information do you expect to see in the Report?

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7. Is there any suggestion on our CSR performance and future Reports?

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Which type of stakeholder are you?

Government/regulator  Investor  Community resident  Customer  Financial institution  
 Government/regulator Technical college  Supplier  Media  Social organization  Others

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# About This Report

Dear readers, this is Datang Power's 12th CSR Report. The Report discloses our philosophy, strategies, actions progress and our 2020 in respect of our economic, social and environmental responsibilities. We hope that by publishing the CSR Report we could enhance communication and cooperation with you and strengthen our synergy for sustainable development.

## Basis of Compilation

This Report is compiled in compliance with a) the Guidelines of SASAC on CSR Performance of Central Stat-owned Enterprises; b) the Environmental, Social and Governance Reporting Guide of HKEX; c) the Circular on Strengthening CSR of Listed Companies and the Guidelines on Disclosure of Environmental Information by Listed Companies of SSE; d) the GRI Sustainability Reporting Standards (GRI Standards) issued by the GSSB.

## Reporting Period

The Report covers the period from 1 January 2019 to 31 December 2019, Part of the contents may exceed the above-mentioned time span.

## Reporting Cycle

This is the 12th CSR Report published by Datang Power.

## Scope of the Report

The Report covers all relevant information of the Company, please refer to P8-P9 of this report.

## Data Sources

All financial data in the Report is taken from Datang Power's official internal documents and statistics.

## References to Datang Power

In the Report, "Datang International Power Generation Co., Ltd." is also referred to as "We" "the Company", and "Datang Power".



**Access to the Report**

The report is available in both Chinese and English.  
For a hard copy, please contact:

Tel: 010-88008025

Email: dtgjzys@163.com

 This report is printed on environmental-friendly paper.