国家能源集团
CHN ENERGY

2019 China Longyuan Power Group Corporation Limited

CORPORATE SOCIAL RESPONSIBILITY REPORT

Clean Energy Beautiful China

NOTE ON THE REPORT

References

Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities by SASAC;
Sustainability Reporting Guidelines (G4) by Global Reporting Initiative;
ISO 26000: Social Responsibility Guide (2010) by International Organization for Standardization ISO;
the Environmental, Social and Governance (ESG) Reporting Guide issued by Hong Kong Stock Exchange,
and Guidance on Chinese Enterprises' Corporate Social Responsibility （CASS-CSR 4.0）.

Data Sources

The data in the report is subject to the annual reports, statistics and other official documents of Longyuan Power and its subsidiaries which have been approved by the senior management, administrative departments and subordinate entities.

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You can download the report from our website.
To get a copy or give feedback, please contact Zhengshu Zhang.
Tel: +86-10-63887732
Fax: +86-10-63887730
Email 12006129@chnenergy.com.cn

Description Clarification

China Longyuan Power Group Corporation Limited is referred to as “Longyuan Power”, “Longyuan” and “the Company” in the report.

Coverage

This report shares its fulfillment of economic, social and environmental responsibilities by Longyuan Power and its subsidiaries.

Time Frame

January 1 – December 31, 2019. Certain parts may go beyond this time frame.

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Jia Yan Bing
Chairman

LETTER FROM THE CHAIRMAN

Operating with original heart, shouldering responsibility as mission

Year 2019 marks the 70th anniversary of the founding of People's Republic of China which also represents a crucial year for us as we endeavor to achieve the frst Centenary Goal of building a moderately prosperous society in all respects. As an important part of the China Energy Group's new energy sector, Longyuan Power follows the guidance of Xi Jinping Thought on Socialism with Chinese characteristics for a New Era and upholds the spirit of the Nineteenth National Party Congress and Plenary Sessions of the 19th CPC Central Committee.Under the leadership of China Energy Group's Leading Party Group and the company's board of directors, Longyuan will conscientiously implement the energy strategy of Four Revolutions and One Cooperation, adhere to and strengthen the party's overall leadership. Operating with original heart and shouldering corporate social responsibility as mission, Longyuan fully Implements the overall strategy of "One Goal, Three Drives, Five Transformations, Seven First-Class" to win a good start for building a world-class new energy corporation with global competitiveness. Longyuan sees a sound and steady improvement in operation and ranks as Global Top 500 New Energy Enterprises for seven consecutive years.

In terms of fulfilling corporate social responsibility, Longyuan Power strengthens responsibility management and shapes a responsibility culture. Longyuan carries out economic responsibilities for value enhancement; it shoulders social responsibilities for harmonious development; it performs environmental responsibilities for green energy; and it effectively integrates social responsibility into the company's strategy and operational practice. Longyuan fully enhanced its comprehensive value creation, business operation transparency and brand infuence and continued to consolidate its position as the world's largest wind power operator with remarkable responsibility performance, and won the " Overseas Corporate Responsibility Model Enterprise Award ".

The year 2020 marks the end of China's efforts to build a moderately prosperous society in all respects and the 13th fve-year plan. Longyuan people will rally closely around the Party Central Committee with Comrade Xi Jinping at its core, uphold and strengthen the overall leadership of the Party, frmly establish a new development concept. Under the strong leadership of the China Energy Group Party Group, we will bear in mind the mission and shoulder responsibility; we will never forget why we start and continue to proceed; we will constantly endeavor to build a world-class new energy company with global competitiveness, to maximize the company's comprehensive value of economic, social and environmental performance, and to make greater contribution on China Energy Group's goal of building a world-class model corporation and on realizing the Chinese dream of ecological civilization!

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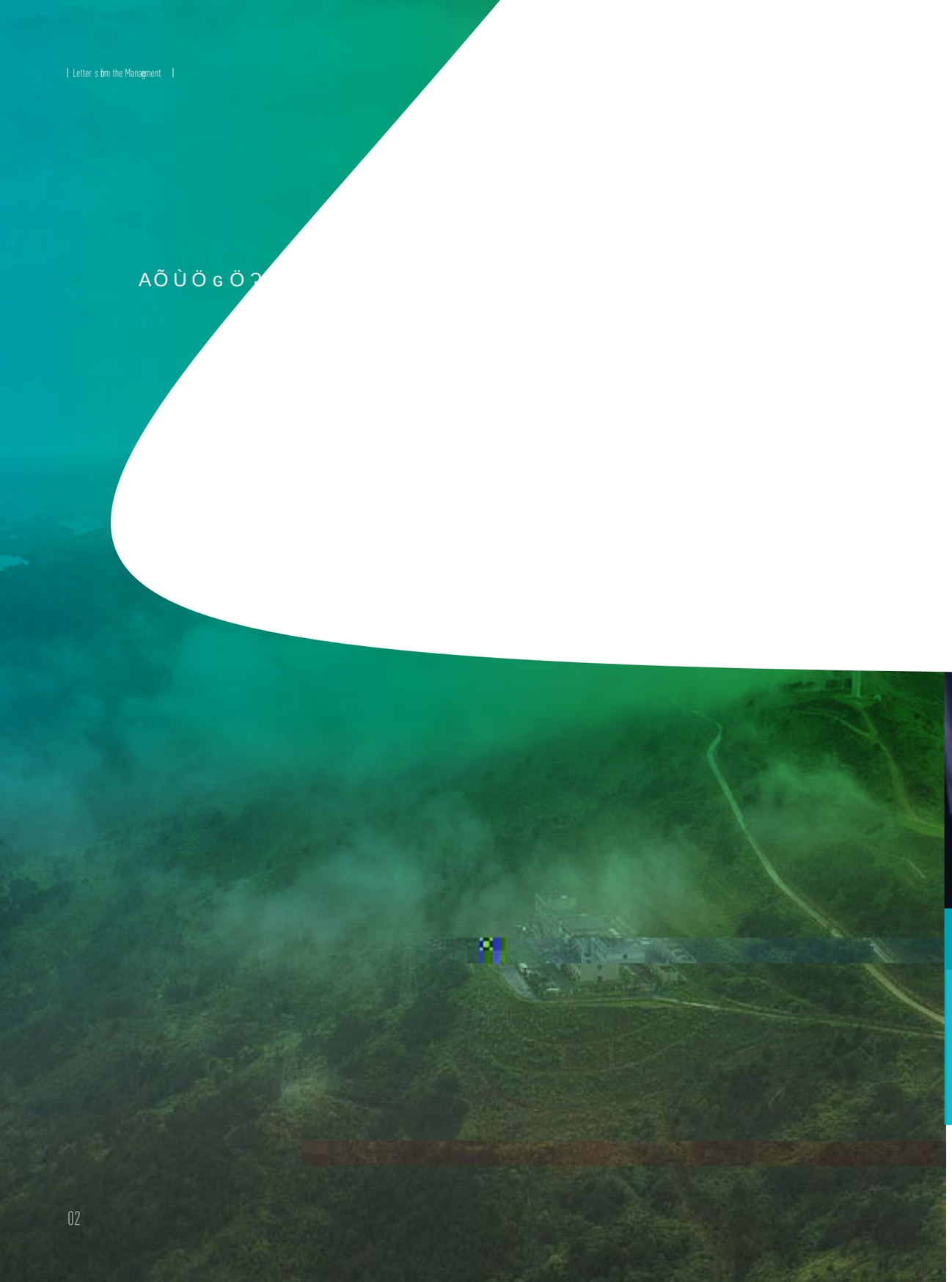
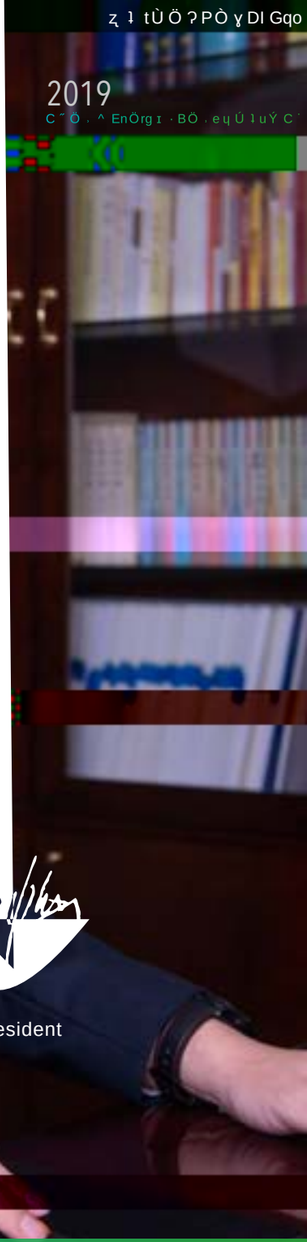




President

LETTER FROM THE PRESIDENT

COMPANY PROFILE

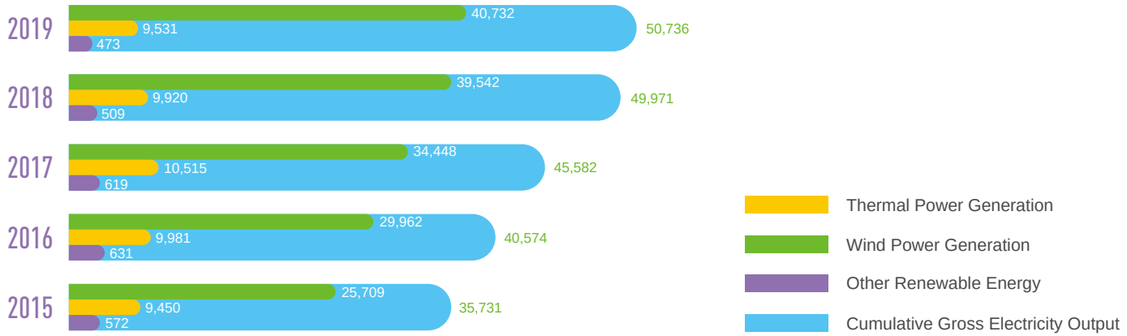
Founded in 1993, Longyuan Power was subordinated to the Ministry of Energy of the People's Republic of China. Now as a part of the China Energy Group, it is the earliest specialized company to develop wind power in China, after being affiliated to Ministry of Electric Industry of PRC, the State Power Corporation of China and China Guodian Corporation. In 2009, Longyuan Power conducted an initial public offering of H shares for listing on the Main Board of Hong Kong Stock Exchange, making it the first company of China new energy listed in stock market. Today, Longyuan Power has developed into a large-scale comprehensive power group focusing on new energy with more than 300 wind farms as well as photovoltaic, biomass, tidal, geothermal and thermal power generation projects, covering its business domestically in 32 provinces and cities, and overseas in Canada and South Africa.

As of the end of 2019, the installed capacity of Longyuan Power holdings reached 22,157 megawatts, of which the wind power was 20,032 megawatts, maintaining its lead in world's largest wind power operators. Based on good business performance, the company has been awarded prizes and honors such as the "National Civilized Unit", "National May 1st Labor Award", 2013–2014 "Environmental Protection New Energy Enterprise Award" for the Hong Kong Stock Market Ranking of Mainland Chinese Enterprises, "Best Listed Company in Corporate Governance ", "The Most Valuable Listed Company during the 13th Five-Year Plan period", " Listed Company with Best Brand Value " and "Best Listed Company". It has been listed the "Global Top 500 New Energy Enterprise" for seven consecutive years.

KEY PERFORMANCE

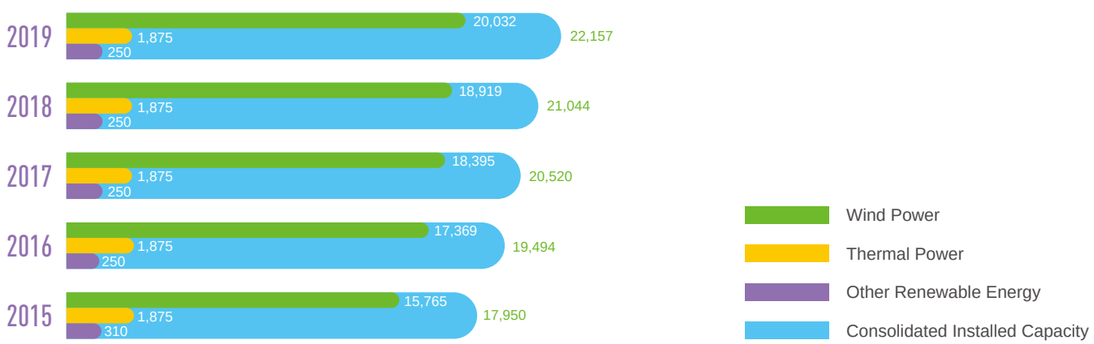
Power Generated in the Last Five Years

Unit: GWh



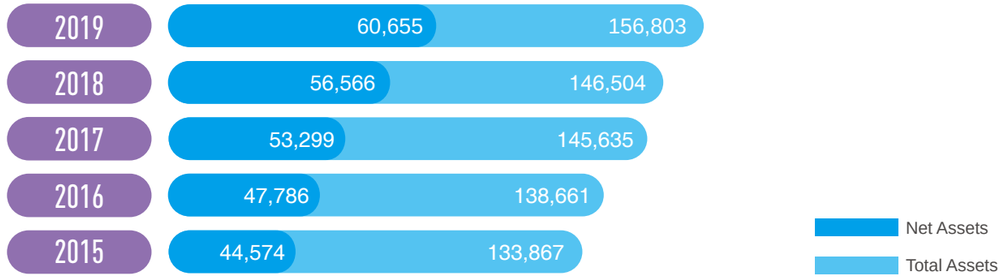
Total Installed Capacity in the Last Five Years

Unit: MW



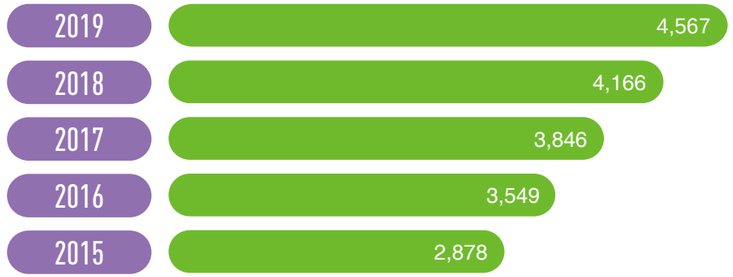
Total Assets & Net Assets in the Last Five years

Unit: Million RMB



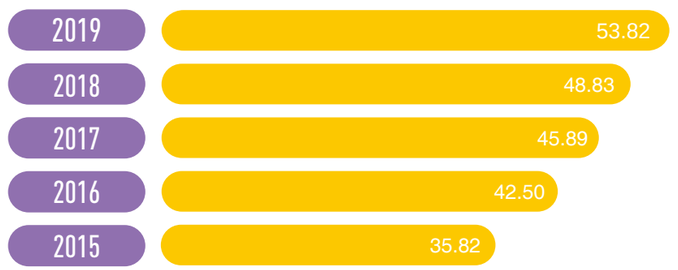
Net Profit Attributable to Shareholders in the Last Five Years

Unit: Million RMB



Earnings per Share in the Last Five Years

Unit: RMB Cent



Honors&Awards

In January 2019, Longyuan Power was successfully selected into the 2018 China Energy Innovation-New Energy Investment List.

In February 2019, Longyuan Power won two awards: "Excellent Issuer of China Green Bond Index Sample" and "Excellent Corporate Bond Issuer".

In June 2019, Longyuan Heilongjiang Company Yichun Daqingshan Wind Farm was awarded the "Youth Civilization" by the Central-Government Owned Enterprise Youth League Working Committee.

In July 2019, Longyuan Zhongneng Company successfully obtained the qualifications of national network security evaluation institutions, marking the first time that domestic new energy industry obtaining such qualification licenses.

In August 2019, Longyuan Liaoning Company's Xiguan Wind Farm, Longyuan Inner Mongolia Company's Guancun Wind Farm, and Longyuan Shandong Company's Beihai Wind Farm won the National Wind Power Operation Index Competition Class 5A.

In September 2019, Longyuan Zhejiang Company's "Party Members Stay" party building activity won excellent party building achievements among national power industry.

In September 2019, Longyuan Jiangsu Company was awarded as Advanced Collective of Central-Government Owned Enterprise during the Commendation Meeting for Advanced Collectives and Model Workers of Central-Government Owned Enterprises held in the Great Hall of the People.

In September 2019, Longyuan Jiangsu Offshore Dafeng Wind Farm was awarded "Top Ten Excellent Wind Farms" by China's Top 50 Wind Power Industry in 2019.

In October 2019, Longyuan Power ranked as Global Top 500 New Energy Enterprises for seven consecutive years.

In October 2019, Longyuan Power won the first prize of the joint power and gold fan competition in the first wind power maintenance skills competition held by China Energy Group with 39 employees won the title of China Energy Group technical experts.

In October 2019, the Wenling Jiangxia Tidal Test Power Station affiliated to the company was awarded the National Important Heritage Conservation Unit (Important Modern Historical Sites and Representative Buildings).

In October 2019, Zhang Xi, president of Longyuan Tibet Company, as a representative of the central-government owned enterprise staff, was invited to participate "Spring Tide" phalanx floats in the mass parade during the military parade and mass parade to celebrate the 70th anniversary of the founding of the People's Republic of China.

In November 2019, the key technologies and engineering applications of the company's complex geological offshore wind power foundation design and construction won the second prize of the 2019 China Electric Power Science and Technology Progress Award.

In November 2019, Longyuan Zhongneng Company won the first prize of the 2019 Electric Power Science and Technology Innovation Award for the "Key Technology and Engineering Application for Design and Construction of Shallow Overburden Offshore Wind Power Single Pile Foundation".

In November 2019, "Inheritance from Pursuing the Wind and the Waves" of Longyuan Fujian Company was awarded as excellent works in an event held by Cyberspace Administration of China and the All China Federation of Trade Unions.

In November 2019, Longyuan Heilongjiang Company was awarded the "Advanced Unit of Party Building Corporate Culture in the New Era" by the China Culture Administration Association.

In December 2019, Longyuan Power won the "Overseas Corporate Responsibility Model Enterprise Award" at the 2019 China Corporate Social Responsibility Report Summit and the Eighth Annual Shared Responsibility Summit hosted by the China Social Responsibility 100 Forum and the China CSR Report Rating Expert Committee.

In December 2019, Longyuan Power won the "Best Investor Relations Team" award of the 9th China Securities "Golden Bauhinia" Award with the company's board secretary Mr. Jia Nansong awarded as the "Annual Excellent Board Secretary".

In December 2019, the research and application of Longyuan Jiangsu Offshore's offshore wind power safety command and dispatch platform was recognized as the 2019 power industry scientific and technological innovation achievement.

"Led by Innovation, deeply integration of information technology and energy production and comprehensively enhanced equipment management ensure safety and improve efficiency" won the outstanding award of the China Energy Group's 2019 Award Fund.

RESPONSIBILITY FEATURE

Longyuan Power won the "Overseas Corporate Responsibility Model Award"

Early Childhood Education Center Invested by Longyuan South Africa Company.

On December 25, 2019, Longyuan Power won the "Overseas Corporate Responsibility Model Award" at the 2019 China Corporate Social Responsibility Report Summit and the Eighth Annual Shared Responsibility Summit hosted by the China Social Responsibility 100 Forum and the China Corporate Social Responsibility Report Rating Expert Committee in Beijing.

In recent years, Longyuan Power has actively implemented the Belt and Road initiative by enhancing international energy and technology cooperation as well as fulfilling its responsibilities, serving local communities so as to have a good image of Chinese enterprises. Given a full consideration of its core business, corporate sustainable development and the actual situation of South Africa's development, Longyuan South Africa company proposes a local initiative featuring helping students, building dreams, cultivating people to contribute Chinese help to South Africa's education. Longyuan South African company formulates a scholarship program investing four million rand annually to fund 40 excellent poor freshmen in the Northern Cape Province to go to college which is appreciated by the South African Department of Energy. Longyuan South African company funds South African Department of Energy for its college student learning week activities and investes four early childhood education centers with an annual investment of about two million rand to carry out pre-school education for local poor or physically and mentally disabled children, benefting a total of 300 local children. Longyuan South Africa company spends four million rand purchased professional medical vehicles and invests five million rand each year to provide free medical services to nearly 10,000 local children, women, the elderly and other special poor people. As a typical case, the company's performance of responsibility in South Africa was included in the "Blue Book of Central-Government Owned Enterprise Overseas Social Responsibility (2019)" compiled by the State-owned Assets Supervision and Administration Commission of the State Council and the Chinese Academy of Social Sciences.

As exchange with hundreds people and mass all being its catchword, the China Social Responsibility 100 Forum was established on October 30, 2016 aiming to create a mechanism for government leaders, experts, scholars, and entrepreneurs to participate in their personal capacity to build high-end platform for China society responsibility development. A total of 150 guests from all parties including the State-owned Assets Supervision and Administration Commission of the State Council, the Ministry of Industry and Information Technology, outstanding enterprise representatives, and mainstream media attended the meeting. The conference initiated the compilation of the "Chinese Corporate Social Responsibility Reporting Guide (CASS-CSR5.0)" and released the "Chinese Corporate Social Responsibility Report Research (2019)" for the ninth consecutive year.

Longyuan Ranks in Global Top 500 New Energy Enterprises for Seven Consecutive Years

On October 22, 2019, the 2019 Taiyuan Energy Low-Carbon Development Forum was held in Taiyuan, Shanxi. The conference at the same time announced the results of the selection of the Global Top 500 New Energy Enterprises in 2019. Longyuan Power has been listed for seven consecutive years.

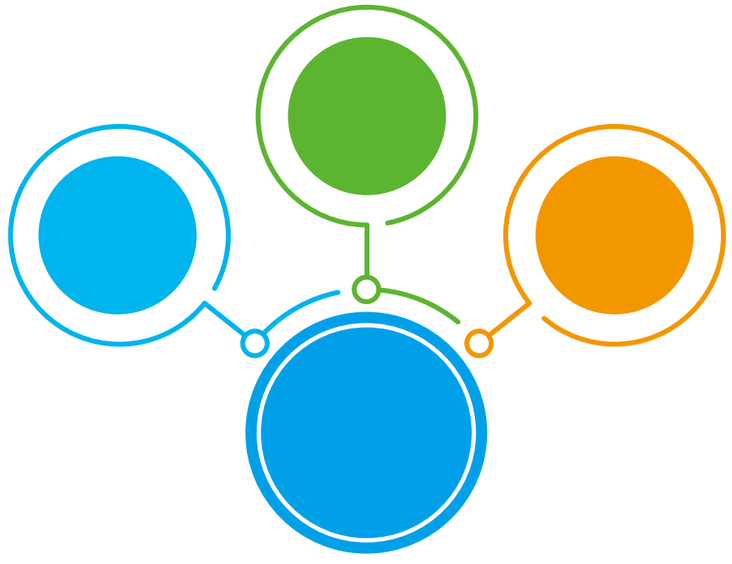
As an important part of the China Energy Group's new energy sector, since 2018, Longyuan Power has firmly adhered to general work guideline of making progress while maintaining stability, continues to apply the new development philosophy, solidly promotes quality and efficiency, maintaining a good momentum of its business development. At the same time, the company insists on high-quality development, constantly optimizes its layout, focuses on the development of high-quality wind resources in the central, eastern, southern and southeastern coastal areas, maintaining its position as the world's largest wind power operator.

Longyuan Power has been awarded “2019 Global 500 New Energy Enterprise” by search committee in a big public welfare activity jointly launched by China Energy News from People’s Daily’s and the China Institute of Energy Economics Research for the authoritative research and evaluation of the new energy industry, which has been successfully held for nine sessions. The event provides an indicator of global new energy industry feature, new changes and important trend. The Global Top 500 New Energy Enterprises Research Foundation, which is the basis of this selection activity, was listed as a soft science topic of the National Energy Administration in 2011.

RESPONSIBILITY MANAGEMENT

Concept of Responsibility

Longyuan Power regards fulfilling its social responsibilities as its inherent responsibility and obligation, forms a model social responsibility with people, win-win cooperation and first-class as its features. We pay attention to the dynamic balance of economic, social and environmental responsibility, continuously increase competitiveness, management level and our social responsibility management, setting up a good social reputation and brand image with unstopping promotion to high-quality sustainable development of enterprises, society and the environment.



Responsibility Strategy

Longyuan Power has always attached great importance to undertaking corporate social responsibility and regarded it as an important part of the company's mission to develop clean energy for a beautiful China and to achieve its strategic objective of establishing a world-class new energy company with its global competitiveness. Guided by corporate philosophy of paying equal attention to corporate scale and benefits, corporate development and staff welfare, corporate hard and soft power under collective and international trend. We strive to integrate corporate social responsibility into the company's operation management and continuously improve corporate social responsibility performance.

Responsibility Governance

Longyuan Power has continuously improved and strengthened the construction of social responsibility management system in its daily operation and management and achieved remarkable accomplishment in organization management and system construction. In the process of promoting social responsibility management, the company has set up a social responsibility leadership from senior management of the enterprise which is responsible for the overall deployment of social responsibility management and for the construction of social responsibility management system. The functional departments and full-time personnel have been identified and each subsidiary has established a social responsibility management system to continuously provide safeguard of social responsibility. The company gradually establishes its social responsibility systems such as daily management system, information collection system, information disclosure system and social responsibility reporting system. With social responsibility management being constantly standardized and institutionalized, we set up a social responsibility reporting system to compile report up to the standard, through which we regularly publish annual social responsibility reports to the public, disclose every detail of the social responsibility concept, practice and performance as well as willingly accepts public inspection.

Communication over Responsibility

Longyuan Power actively identifies and responds to interested parties, effectively communicates with stakeholders through the release of social responsibility reports and senior leaders' participation in social responsibility communication and exchange.

	Safe and stable electricity supply Maintain and increase the value of state-owned assets Comply with laws and pay taxes Maximize shareholders' long-term benefits	Guarantee their rights and benefits Provide professional development Realize their value Care for them physically and psychologically Corporate culture	Provide sufficient, stable, safe, and environment-friendly electricity at a reasonable price Enhance service quality	Abide by commercial morals, laws and regulations Strengthen standardized safety management Be credible for a win-win situation	Participate in the discussion and research on public policies and industrial standards Follow the industrial development trend and policies Promote the sustainable development of the Company and the industry	Protect the community environment Participate in community construction Support public welfare
	Participate in the discussion on relevant policy formulation and contribute its experience Assert positive influence on public policies Talk with the government in the operational area Increase information disclosure	Staff representatives from the Supervisory Board Labor unions of different levels Staff Congress Increase information disclosure	Pay regular visits to customers Publish product quality information Provide service activities Seek for customers' opinion Increase information disclosure	Business negotiation and technical exchanges Publish management regulations on suppliers and contractors Share management experience and technical standardswww Contract negotiations Routine business communication Increase information disclosure	Provide corporate experience Participate in relevant activities Enhance international exchanges Increase information disclosure	Talk with local governments Support community welfare Community visits and exchanges Increase information disclosure
	Execute the national energy policies Open to supervision, inspection and evaluation Regularly hold meetings of shareholders Regularly hold meetings of the Board of Directors Hold meetings with investors	Strengthen employees' training and cultivate their skills Improve living and working facilities Continue with the Green Care Campaign Insist on employees' occupational health check	Refine quality management system and recommend products' technical upgrade	Establish transparent and fair regulations for bidding Compile legitimate and fair contracts for cooperation Improve the system and procedures of project construction supervision Actively communicate and coordinate with contractors and create a safe and healthy working environment Provide fair competitions to suppliers	Take part in industrial organizations Communicate about concerned problems in various methods Participate and support the international environmental standardization	Conduct educational donations, disaster relief, and crisis rescue Support the new rural construction Support and promote local economic development by constructing major projects Carry out employee volunteering activities Invest in environmental protection projects
	Fees and taxes Power production Dividend-payout ratio Stock value	Occupational health check rate Number of trainings given to employees The guarantee of salaries and vacations Donations to employees in difficulties	Electricity sales	Contract implementation rate	Number of organizations and people to take part in and the number of activities	Social welfare investment Number of employee volunteers and the number of activities

Responsibility Implementation

In 2019, the company worked out a standard social responsibility indicator system to describe the world-class corporate social responsibility features, which depicts a roadmap of social responsibility implementation from 2015 to 2020 as follows:

Roadmap of CSR 2019	Implementation of CSR 2019
Carry out social responsibility risk management	Completed
Establish social responsibility work information system	Completed
Incorporate performance evaluation indicators into the evaluation system and conduct a comprehensive social responsibility performance evaluation	Completed
Carry out internal social responsibility investigations and optimize the management system based on performance evaluation and investigation results	Completed
Participate in the formulation of social responsibility standards at home and abroad, and contribute to the development of domestic and international social responsibility	Completed

ECONOMIC RESPONSIBILITY

Responsibility For Shareholders

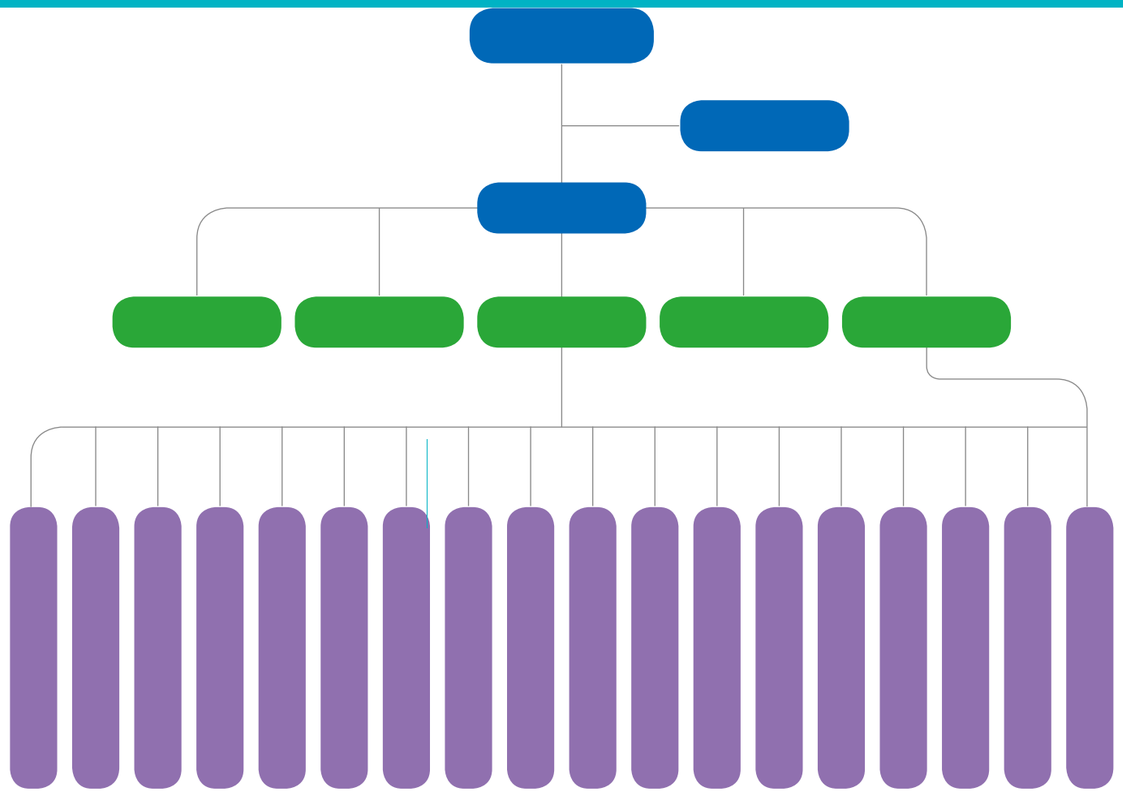
Responsibility for shareholders means that the company is responsible for the benefits of its shareholders. Longyuan Power cherishes and makes good use of shareholders' investment, constructs a solid corporate governance structure, and builds a business culture with value maximization as its driving force to increase its corporate value and repays to the shareholders to constantly win trust and support from shareholders and investors.

01 / Shareholders' Equity

Longyuan Power establishes a shareholders' equity safeguard mechanism and further its communication with shareholders to disclose corporate information such as major business decisions, financial performance and social practice activities to shareholders in a timely and accurate manner to guarantee appreciation value and the interest of shareholders and investors.

Further Reading

- The company achieved consolidated operating income of RMB 27.541 billion throughout the year, a year-on-year increase of 4.4%.
- The net profit attributable to equity holders of the company was RMB 4.567 billion, a year-on-year increase of 9.6%.
- The company achieved earnings per share of 53.82 cents.
- The company achieved a total profit of RMB 6.45 billion.
- At the end of the year, the company's total assets reached RMB 156.803 billion with net assets RMB 60.655 billion and its net debt-liability ratio 55.54%.



Further Reading

- In terms of financing, the Company closely focused on the two major domestic and foreign capital markets, further expanded financing channels, and successfully issued seven ultra-short-term financing bills, three medium-term bills, and one short-term financing bills. The annual cost of capital maintained leading momentum in the industry.
- On September 26, 2019, the Company's issued 500 million yuan of green poverty alleviation ultra-short-term financing bills in cooperation with the Agricultural Bank of China, marking the successful landing of the first domestic green poverty alleviation debt.
- On November 12, 2019, the Company's renewable power plus subsidizing green asset special plan was approved by and listed in the Shenzhen Stock Exchange without objection. This product is the first renewable energy subsidy asset securitization product in Shenzhen Stock Exchange, with a shelf registration of 10 billion yuan, the largest scale in the power industry.
- The Company was awarded as Excellent Issuer of China Green Bond and Excellent Corporate Bond Issuer.

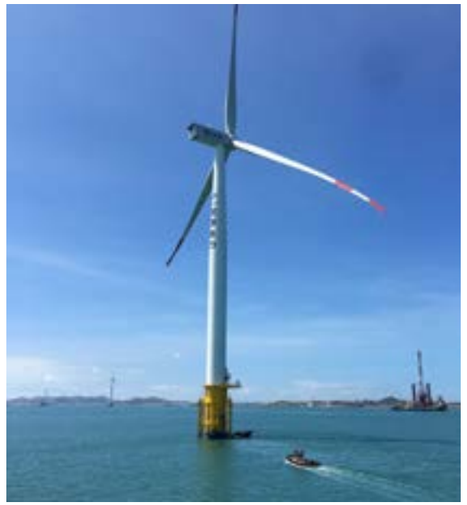
06 / Market Value

The Company properly maintained investor relations through activities such as performance roadshows and investment summits, held investment conference, and actively conveyed positive voices to enhance the confidence from the capital market on the company's development. In 2019, based on stable performance and good growth expectations, all major investment banks have given the Company a "buy" or "hold" rating. Longyuan Power won the “Best Investor Relation Team” award in the 9th China Securities “Golden Bauhinia” Awards Selection.

Responsibility for Customers

Longyuan actively takes responsibility for customers. In the process of new energy development and construction, the Company always puts high-quality sustainable development in an important position, continuously consolidates its development advantages, strives to provide excellent services, and constantly improves customer satisfaction and loyalty.

Longyuan Hubei Company and Zishi Town signed a 135,000 kilowatt photovoltaic development agreement.



Longyuan Fujian Company's offshore wind farm staff sails to work.

01 / Optimize Layout

Longyuan puts strategic guidance in a very important position, compiles guiding documents such as its 14th Five-Year development plan, large base planning report, three-year offshore wind power plan, and scientifically optimizes the development layout. It expands its cooperation channels, strengthens high-quality resource reserves, sets up working groups in Central and Eastern Europe, Southeast Asia, and in Oceania. It continues to put overall benefits as the first priority, puts the promotion of overseas new energy project development as a whole, and gradually expands the operation of overseas business. From point to area, the Company forms a comprehensive and three-dimensional development model to continues to attract client through innovation, to maintain its leading trend in development, and to present a sustainable, stronger and responsible company to clients.

Further Reading

- The Company's new resource reserve is 13.6 million kilowatts, a new high during the 13th Five-Year Plan period.
- The Company was approved of 1,470 MW of wind power projects which includes newly approved Guangdong 1,000 MW offshore project, marking the Company's first project in the South China Sea wind power field.
- The Company acquired development right on a energy complements local consumption demonstration project in Baotou with a capacity of more than 1 million kilowatts.
- The Company won the bid for the Dunhuang 1.6 million kilowatt landscape project, got the leading right for the development of the Dunhuang million kilowatt new energy comprehensive demonstration base.
- The Company signed a development agreement of 5.35 million kilowatts with Shanxi, Ningxia, Shaanxi and other provinces.
- The Company signed base project development agreements of 2.65 million kilowatts with Alashan, Zhangye and other local governments.
- The Company has prosepcted 370,000 kilowatts of photovoltaics, a breakthrough in photovoltaic development during the 13th Five-Year Plan period.
- The Yuzhny project kicked off in Ukraine which is the Company's first new energy project in Europe.
- The Company’s 90,000 kilowatt photovoltaic projects of Ukraine have been approved by the China Energy Group.
- The Company is impelling its 50,000 kilowatt photovoltaic project in Malton, Australia.
- The Company, Envision Renewables and other company signed a cooperation agreement for Vietnam's 690,000-kilowatt wind power project.

02 / Project Construction

The Company strictly carries out the construction resume procedures, increases the depth of the preliminary work, checks the construction conditions in advance, optimizes the project quality management, rigorously controls the project cost, promotes safe and civilized construction, enhances the project process control, proceeds the project with high quality and effciency, and continues to lead the development of the industry with frst-class projects.

On November 26, 2019, the frst wind turbine of Longyuan Tianjin Yangjiapo 50MW Wind Power Project was completely installed as the third fan blade of the No. 3 stand was slowly seated.

In 2019, the first phase of the Wucheng project of Longyuan Shandong Company kicked off and fnished installation of its frst wind turbine on October 10th.

Further Reading

- The Company put into operation of 14 wind power projects with a total of 1.113 million kilowatts and had 26 projects kickoff with a total of 1.95 million kilowatts, a huge increase compared with 2018 in capacity of commissioning and construction.
- The Company's wind power installed capacity has exceeded 20 million kilowatts with its offshore installed capacity ranks frst in the country and third in the world.
- Longyuan Ningxia Company directed in advance and checked the external conditions ahead of schedule. The Xidajing project was put into operation with its full capacity during the year of its kickoff.
- Longyuan Jiangsu Offshore cohesively solved the problems leading Dafeng H7 project successfully connected to the grid.
- The under construction Jiangsu Offshore Sheyang H2 project is the 10th offshore wind power project in Longyuan. The center of the site is 45 kilometers offshore, the most distant offshore project started by the China Energy Group.

03 / Scientifc Management

The company targeted its own shortcomings, changed its way of thinking, implemented innovation-driven strategies, innovated management systems and mechanisms, improved and perfected the management, optimized department functions, scientifcally set up departments, strengthened benchmarking management, deepened power-limit management, and comprehensively and continuously improved the management level.

Further Reading

- The Company established a new energy development research center to strengthen the combination of production and research to provide a basis for the Company's development decision-making.
- The Department of Science, Technology and Information was reorganized to promote the transformation and upgrading of informatization and to steadily improve the level of scientific research and informatization.
- The Company set up a comprehensive energy research institution to strengthen tracking research on other new types of comprehensive energy besides wind power.
- The Company established an equity merger and acquisition company, actively looked for potential high-quality resources in the market, and promoted merger and acquisition of new energy projects.

04 / Effcient Operation

Based on the market, Longyuan Power shoulders its responsibility, lays stress on both quality and efficiency, implements positive business strategies, raises marketing awareness, achieves remarkable business performance through robust and efficient operations, maintaining a healthy and sustainable development trend and continuously enhancing customer satisfaction and trust.

Further Reading

- The Company implemented the work plan of the China Energy Group's "100-day battle" and achieved the production and operation goal 9 days ahead of schedule.
- The Company deeply implemented China Energy Group's call for increasing revenue and reducing expenditure with a save of RMB 50.57 million in total.
- The Company adheres to the principle of one-enterprise-a-strategy and strengthens the implementation of measures to control losses with its unprofitable enterprises decreased by 4 from the previous year, a year-on-year loss of 0.25 billion yuan, reaching the "double drop" goal set at the beginning of the year.
- The Company added 1,113 MW of wind power installed capacity with its installed capacity of wind power holdings exceeded 20,000 MW, maintaining its lead among global wind power operators.
- The Company's cumulative power generation is 50.736 billion kWh, of which wind power generation is 40.732 billion kWh, an increase of 3.01% year-on-year.
- The average utilization hours of the Company's wind power is 2,189, a decrease of 20 compared with 2018.
- The Company completed wind power transactions of 12.5 billion kWh, an increase of 2.43 billion kWh year-on-year, and obtained 5.23 billion yuan in electricity selling, an increase of 1.16 billion yuan year-on-year, with the average transaction price increased 9 yuan / kWh year-on-year.
- The average utilization hours of the two thermal powers of the Company is 5,083 hours, maintaining its advancement among regional comparable companies.

CLASSIC CASE

Longyuan Qinghai Company participated in the first market-oriented transaction between Qinghai Energy Storage Power Station and new energy companies

In order to adapt to the power trading market faster, the Company changed its marketing concepts and took the initiative instead of waiting or relying. April 15, 2019, Longyuan Qinghai Company signed the frst market transaction contract of shared energy storage peaking ancillary service in Qinghai, which effectively relieved the Company's Phase I and Phase II grid-connected photovoltaic power generation projects from April 21st to 30th during the peak hours of the power grid with an increase in power generation of approximately 417,800 kWh and an increase in the revenue of approximately 484,600 yuan. The promotion of the transaction not only improves the company's earnings, but also provides a reference for later participation in the market-oriented transaction of energy storage.

Signing Ceremony

05 / Scientifc and Technological Innovation

Longyuan took the initiative to adapt to the new situation featuring scientific and technological innovation and information drive, restructured its technological innovation system, actively integrated scientific and technological forces, and focused on promoting key technology research and development and on the transformation and application of scientific and technological achievements with five provincial-level scientific and technological advancement award, four industry-level scientific and technological advancement awards, 40 new patent authorizations and 12 software copyright authorizations all over the year. Longyuan steadily promoted informatization and intelligence construction, completed the compilation of wind farm informatization construction standards, clarified the feasibility and design standards of new wind farm informatization, and was appointed as chief editor for one national standard and four energy industry standards including Technical Guidelines for Smart Wind Farms which is the frst and fundamental standard for smart wind farm industry in China. Longyuan built corporate intelligent production management system and carried out pilot construction of smart wind farms with the affiliated Anhui Longhu Wind Farm listed as pilot project of the China Energy Group's smart wind farm construction model. Longyuan's scientific and technological innovation works are refreshing.

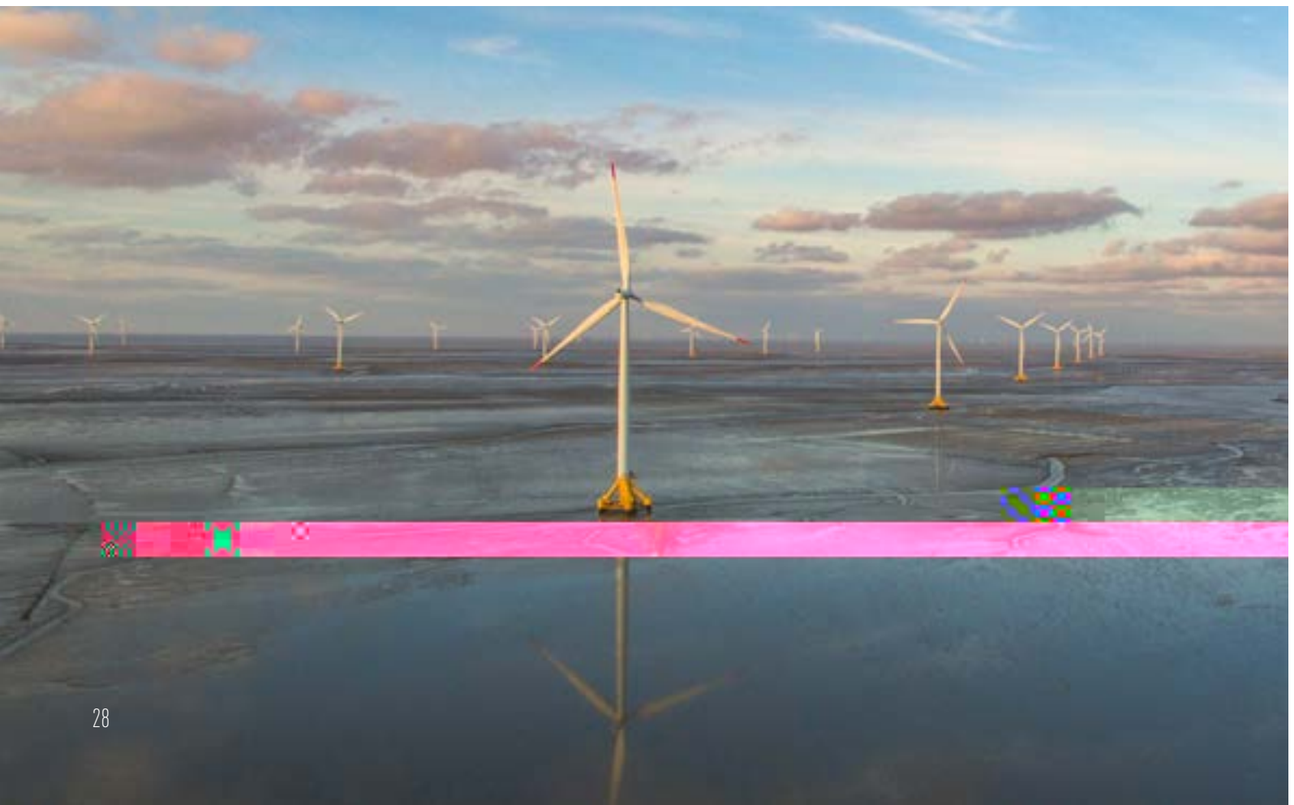
In July 2019, Longyuan Zhongneng Company successfully obtained the qualifications of national network security evaluation institutions, marking the frst time that domestic new energy industry obtaining such qualification licenses which provides effective guarantee for energy information security.

Responsibility For Partners

The Company actively shoulder its responsibility for partners, adheres to the business philosophy of fair operation, strictly abides by national laws and regulations, international trade rules, business ethics and industry rules, and strives to build mutual support, mutual benefit and all-win relations in line with the principle of equality, respect and integrity while following the trend of the market.

01 / Equal Competition

The Company continues to adhere to the policy of extending social responsibility to partners, builds a partner responsibility chain, and guides partners to develop fair cooperation in terms of quality, efficiency, price and service. When selecting partners, the Company strictly abides by the principle of fair trade, effectively regulates the pre-qualification procedures, and conducts interactive exchanges, inspections and confirmations of the cooperative units in a fair and impartial manner. The Company strictly implements the project construction contractor access system, establishes and improves the project bidding system, construction supervision systems and procedures, giving each qualified supplier equal opportunities for competition, which wins a wide recognition from all partners.



On June 26, 2019, a group of East China Power Grid Company came to Longyuan Jiangsu Company Dongyuan Wind Farm to carry out power station and grid network activities.

02 / Integrity Collaboration

The Company takes integrity as the principle of collaboration, respects and protects the legitimate rights and interests of its partners, and acts in strict accordance with the contract. Personnel of all departments of the company strictly abide by the rules and regulations, and maintain cooperative relationship in a fair, honest and equal manner. The Company actively cooperates with all parties to jointly promote the healthy, stable and orderly development of the domestic clean energy industry. The company has established strategic partnerships with outstanding enterprises in the design, construction and supervision industries at home and abroad to achieve win-win cooperation.

On August 23, 2019, journalists and news reporters from Xinhua News Agency and other ten mainstream media, industry media and new media summoned by State-owned Assets Supervision and Administration Commission of the State Council and Cyberspace Administration of China visited Longyuan Zhejiang Wenling Jiangxia Tidal Test Power Station to conduct research and interview with the theme of Grow with the PRC, New Media into New State-Owned Enterprises.

In 2019, a-week-long Clean Coal and Clean Energy Exchange and Training for APEC economies was held in Ningbo, Zhejiang. As an important part of the event, Longyuan Zhejiang Zhoushan Jintang Wind Farm welcomed a delegation of 45 people from APEC economies from nine countries and regions in the Asia-Pacific region for their visit on May 10.

In June 2019, Longyuan Mengdong Company Daiqingtala Wind Farm and Daiqingtala Central School jointly organized the school-enterprise network activity.

SOCIAL RESPONSIBILITY

Responsibility for Government

Longyuan actively shoulders its responsibility for the government, Enhances the leading role of party-building, adheres to practicing integrity, strengthens the construction of the rule of law, actively abides by national energy rules and related policies, safeguards the safe and stable supply of electric power, thus creating a good corporate atmosphere of integrity and legitimacy which provides an important guarantee for the corporate's healthy development.

01 / Party Building

The Company insists on studying and implementing Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the spirit of the 19th CPC National Congress and its forth Plenary Session as the primary political task, strengthens the overall leadership of the Party, vigorously improves Party conduct and uphold integrity, incorporates the construction of integrity administration and combating corruption into daily operation and management, strengthens supervision and discipline, promotes the construction of an integrity culture, and adheres to practicing integrity. Improving Party conduct and upholding integrity provides a strong political, ideological and organizational guarantee for the healthy development of the company.

CLASSIC CASE

Carry out education activity themed as remaining true to our original aspiration and keeping our mission firmly in mind

In 2019, Longyuan carried out education activity with the theme of remaining true to our original aspiration and keeping our mission firmly in mind. The Company's leadership investigated in 18 grassroots, listened to their opinions and suggestions, produced 29 reports, collected 34 reflected problems, all of which are being handled. The Company set up five steering groups to steadily promote the completion of 41 grassroots units work tasks, making the themed education a full coverage of the Company.

On June 21, 2019, the Longyuan Power Party Committee held a cadres education seminar with the theme of remaining true to our original aspiration and keeping our mission firmly in mind and a learning session of the Party committee theory center group (enlarged).

The Party committee of Longyuan Jilin Company carried out the traditional revolution education with the theme of remaining true to our original aspiration and keeping our mission firmly in mind by retaking the road of united forces.

On April 17, 2019, Longyuan Jiangsu Company carries out the law-enforcement activities on the theme of “sending the law to the wind farm and law entering the construction site” to prevent legal risk in construction of xuyi project.

In December 2019, Longyuan Yunnan Company held a civil lawsuit moot court on National Constitution Day.

On August 13, 2019, Longyuan Guangxi Company completed the land acquisition and sociyÐ τ ！ γ ᵐ ſ

Longyuan Hubei Company carried out warning education activities during the Party conduct and integrity Government Education Month, and distributed honest and clean administration bookmarks to key post personnel to advocate integrity practices.

In November 2019, Longyuan Tibet Company organized Party members, leading cadres and employees to go to Tibet Million Serf Memorial Hall to carry out Party and patriotic education.

Longyuan Power actively shoulders its responsibility for the employee, regards employees as the most valuable wealth of the company, perfects position systems which suits the market and company's development, continuously improves the job system which adapts to the market requirements and the scale of enterprise development and the competitive labor and employment mechanism, constantly optimizes the labor and employment structure, and strives to provide employees with secure jobs and broad growth space.

Population	7,834
Male Population	6,653
Female Population	1,181
Proportion of first-line production staff	74%
Proportion of first-line production female staff	15%
Proportion of mid- or high-level manament female staff	25%
Number of foreign employees	13

Longyuan Tianjin Company carried out educational activities in the theme of learning from example around and striving to be a pioneer in the post to learn from model Zhang Liming. As an outstanding representative of electric power workers, Zhang Liming has won the honorary titles of "Model of the Times", "Pioneer of Reform", "Model of Morality", "Most Beautiful Fighterr" awarded by the country.

Zhang Xi from Longyuan Tibet Company was invited to phalanx foats as a representative of new energy industry in National Day to show exemplary spirit, to demonstrate Longyuan staff spirit and to deliver the positivity of endeavors.

03 / Employee Development

The Company attaches great importance to the cultivation and development of talents, optimizes the selection and employment mechanism, increases the training of outstanding young cadres, continuously optimizes the structure of its own corporate leadership team to maintain corporate innovation ability. The implementation of a dual-track management mechanism for administrative posts and technical posts has broadened the career development channel for employees. In order to implement the relevant requirements for talent transformation, the Company gradually establishes a personnel post transformation development channel according to the business development needs for production or management positions. At the same time, the Company builds a leadership development channel to serve for the leadership echelon and to improve managers' leading capacities in the field of corporate culture, work value judgment, communication and management skills through enriching the curriculum system and innovating teaching methods.

CLASSIC CASE

Deeply promote the construction of "Chief System"

In 2019, Longyuan further improves the professional development system of the three teams of "administration, technicians and technical staffs" and further promoted the construction of the "chief system". Throughout the year, 90 additional chiefs at all levels were certified including six company-level chiefs and three grassroots chiefs. A total of 358 chiefs at all levels were certified throughout the year including 15 company-level chiefs (ten technician and five technical) and 32 grassroots chiefs (16 technician and 16 technical). The establishment of the chiefs team has effectively promoted outstanding employees' development, fully exerted the leading role of excellent talents, and achieved fruitful results in education and training, technical research and project research, forming an environment where attracts, solicits, educates and staffs talents.

04 / Employee Training

The Company continues to implement the strategy of developing through talents and fully promotes the construction of the “Grand Training” system, constantly enhances the foundation and promotes innovation to further standardize and strengthen the education and training of staff. The Company establishes training centers and training bases, sets up internal trainers, edits and improves internal training materials for print and publish. The Company develops annual training plans for management, technicians and technical personnel, and organizes and implements training programs as planned. The Company focuses on the training of senior management talents and professionals and key technical personnel, carries out targeted training according to the needs of talents, and focuses on improving the actual working ability of employees. Through the continuous development of various training programs, the quality of employees, especially the quality of on-site operation and maintenance staff, has been continuously improved, and the modern management concept and overall management efficiency of administrative staff have been further improved.

Longyuan Heilongjiang Company Shuguang Practical Training Base conducts training for electric transmission and transformation equipment operation.

Longyuan Ningxia Company carried out the on-site employees’ skills training.

Further Reading

- The Company strengthened the construction of training center, southern training base, Shanxi training base, Liaoning training base and Gansu training base among which the Shanxi and Liaoning training base have the ability for employees’ primary practice training, successfully trained 33 staffs from 26 affliated units for primary practice.
- The “Outline of Vocational Education and Training for Wind Power Generation”, “Outline of Qualification Examination for Wind Farm Production Posts”, and “Practice Set of Qualification Exam for Wind Farm Posts” compiled by the Company were officially released in May 2019, effectively provided the basic theory for and improved ability of the production personnel.
- On the basis of fully summarizing the experience of previous key training courses, the Company organized Jiang(General)xing Training Camp for the second time, selected 44 excellent operation inspection personnel who completed the six-month Jiangxing Training Camp, selected 39 outstanding field directors (deputy feld directors) to participate in the Jiangxing Training Camp, and had 82 people to participate in the 2019 young cadre training.
- The Company completed this year's "Famous Teacher Lecture" activity, and organized an expert team based on the Company's chiefs to go to the wind farms in Guizhou, Heilongjiang, Ningxia, Xinjiang, and Gansu to conduct technical skill training.
- The Company organized two rounds training for wind farm field directors and specialists qualification certification work with a total of 35 feld directors (deputy feld directors) and 51 safety (technical) specialists took part in the post qualifcation review and completed the 2016 field director (exclusive responsibility) post qualifcation review work.
- The Company organized all the units to complete the qualifcation certifcation for the level of shift foreman or below with all the affiliated wind power enterprises completing the qualifcation certifcation for the production personnel.
- The Company organized staff from training centers to exchange with the State Grid Training Center, and jointly prepared the employee electrical training program, supplemented the Company's deficiencies in management training and professional skills training by using external training resources.
- The Company held a total of 1,635 professional training courses throughout the year, with 6,355 participants, reaching 31,463 person-time as total.

05 / Employee Compensation

Longyuan employee compensation is composed of post performance salary, special bonus and various subsidies. Through the selection mechanism featuring competition, small steps and dynamic adjustment, the Company improves the post-level compensation to stimulate the vitality of the employee team. Based on performance evaluation featuring regular checking and production index, the Company starts with special rewards in the guidance of value creation, targets on rewarding leaders and employees. According to the impact of the natural index and human factors on the work and life of employees in the area where the inspection site is located, the Company allocates subsidies for staffs working in remote and poor arears to encourage employees to take root and fght. The Company allocates special subsidies to chiefs to mobilize employees' enthusiasm for entrepreneurship.

Chairman of the Board of Directors Jia Yanbing visited and sent regards to the frontline employees in affliated Xinjiang company.

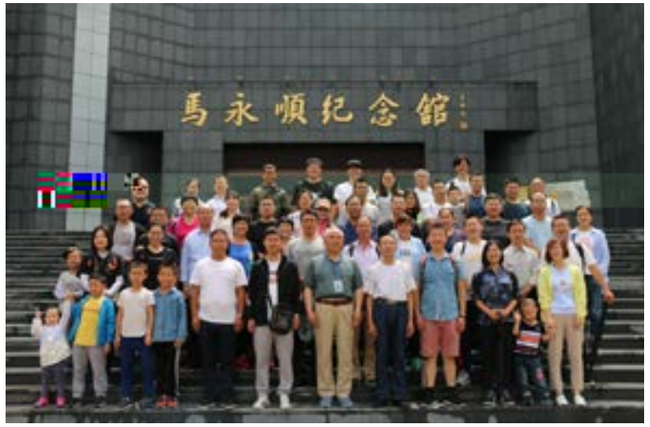
06 / Democratic Management

The Company strengthened democratic management, adhered to the system of employee representatives, fully listened to employees' opinions and suggestions, collected 77 proposals for employee representatives, fled 56 cases, with 100% solution rate and 100% response satisfaction of proposals from last year. The Company will improve the collective contract system for equal consultation, strive to build a harmonious labor relationship, and continue to promote the openness of factory affairs. The Company will continue to broaden the channels for rationalization proposal from employees, and fully mobilize the enthusiasm and initiative of all employees to love their jobs and take enterprises as their homes.

07 / Caring Program

The Company continued to deepen its green caring program, visited 182 employees who are in need, 2,122 employees who stayed at the front line during the holiday season, and five model workers and cadres who were assigned here. The first-line employees are included in the range of rehabilitation staffs and are allocated in two batches for the model rehabilitation. A total of 147 advanced model workers and their families were organized to carry out activities with 2.38 million yuan allowance issued. Mutual aid funds were granted to 93 employees with a total of 900,000 yuan. The Company had a better understanding for the frontline domestic water situation through surveys and investigations, formed a solution system to the problems of front-line employees drinking water and domestic water diffculties accordingly, enhancing employees' sense of belonging and corporate cohesion.

Sun Jinbiao, the president of the Company, visited and sent regards to the frontline employees in affliated Hainan company.



On July 15, 2019, 55 labor models, advanced individuals, front-line workers and family members from remote and poor area in 23 affliated units of Longyuan gathered in Yichun, Lindu to carry out the first batch of advanced labor rehabilitation activities of Longyuan this year.

Longyuan Hubei Company sent regards and granted allowance to employees in need.

Longyuan Jilin Company organized study and rehabilitation activity for the frst time to learn from the model, advanced individuals and frst-line outstanding employees.

08 / Cultural and Sports Activities

The Company actively implements the Healthy China 2030 Outline, promotes all staff fitness exercise, actively carries out various cultural and sports activities, constantly enriches the cultural and sports life of employees, actives work atmosphere, improves employees' health, enhances the sense of belonging of employees, enhances corporate cohesion, and forms a situation of common development and harmonious win-win between employees and enterprises.

Longyuan held Staff Calligraphy and Painting Exhibition in name of celebrating the Seventieth Birthday of the Motherland.

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Longyuan Xinjiang Company held the Red Song Party themed as My Motherland and I stride together Celebrating the 70th Anniversary of the Founding of PRC.

The Company adheres to the principles that responsibility is shared by Party and administrative management, that one posty dʸ ʊ ɲ ʁn" i] ʊ ƙ ʊ. ʊ ᵐy i i] ʊ ƙ ʊ. ʊ ᵐy i f d" b e dƵ f] א é ḏ] א t anc î y tĂ ˈ 02

The staff from Longyuan Hainan Company is explaining and demonstrating the correct way of wearing the full body safety belt for the employees' family.

01 / Safety Culture

The Company firmly establishes the safety concept of life first and safe development, adheres to the bottom line thinking, strictly observes the safety red line, strengthens the implementation of safety main responsibility, strengthens the standardization of safety and civilized production, conducts safety skills training and safety knowledge examination, holds a safety knowledge contest for all employees, rounds of training for safety specialists, and conducts safety drill, to build a safety culture guarantee, and to continuously improve the safety awareness and ability of all employees.

Longyuan Shaanxi Company's Zhouwan Wind Farm actively responded to the invitation of Wuqi County Government to participate in the 2019 National Safe Production Month activity themed as preventing risks, eliminating hidden dangers and reducing accidents, to popularize the knowledge of safe production for the masses of Wuqi County and to raise the masses awareness of safe production, creating an environment of safe production.

03 / Safety Inspection

The Company has intensified safety inspection and rectification efforts, strengthened safety supervision and inspection, comprehensively investigated safety hazards, clarifed responsible persons for rectification, supervised problems to deal with closed-loops, and resolved deep-seated problems affecting safety. The Company carries out in-depth safety inspections of affiliated provincial companies, conducts safety evaluations on affiliated wind farms, includes key issues in governance plans, and urges the implementation of rectifications. Safety supervision department was set up in the affiliated project company to strengthen the supervision and regulation of on-site operations and to continuously improve the safety supervision level.

On the eve of the Super Typhoon Lekima's landing, the wind farms of Longyuan Jiangsu Company carried out special inspections to investigate and eliminate hidden troubles.

In June 2019, Longyuan Hebei Company carried out investigation and elimination of hidden problems, digging deep into hidden safety risks, and consolidated the foundation of safe production.

In July 2019, Longyuan Zhongneng Company successfully completed the intelligent inspection fight test of UAV blades for offshore wind farms in Nanri, Fujian. UAV blade inspections began to enter the offshore wind farm operation and maintenance.

04 / Equipment Management

The Company promotes refined management on equipment, carries out the "equipment management year" activity, promotes equipment management by improving electricity usage effciency, arranges equipment technical transformation and experimental research projects under the guidance of problems, and strengthens equipment defect management, effectively improving equipment condition and operation quality.

Longyuan Ningxia Company carried out with the goal of "doing a good job in deep maintenance and restoring the performance of the equipment", made an actively deployment in response to the problems, solidly promoted the deep maintenance of wind turbines, and injected new impetus into the company's high-quality development.

The Longyuan Heilongjiang Company 's Bianfushan Wind Farm fully played the role of the youth power in the 80-day ensuring safety and increasing power generation corporate competition. Young employees rushed over the snow for repairing the wind tower battery feed failure, making every effort to ensure the safe and stable operation of the wind farm.

Members of Longyuan Shanxi Company's Renlong Innovation Studio carried out innovation and profit-making work on common failures of variable pitch slip rings.

Further Reading

- The Company formulates equipment management plans and specifes measures and three-year management goals.
- The Company carried out G58 variable pitch bearing transformation and joint power blade repair work, recovered 193 long shutdown units and 215 fault power limiting generating units, increasing power generation by 260 million kWh.
- The Company implemented special treatment for 52 tripping lines in 8 major projects, with a decrease of 94 times in line faults and a decrease of 17% fault rate, reducing 64 million kWh in power loss.
- The Company strengthened technical supervision and management, found 348 problems, completed 252 rectifications, and promoted the implementation of 96 issues, effectively improving the level of equipment condition.
- The Company enhanced its technical transformation and technological breakthroughs, focused on issues and problems, made 1,491 equipment technological renovations, and invested 450 million yuan in technological transformation; it promoted 11 mature technological transformation projects, implemented 33 pilot projects, and advanced 13 projects of research and technical transformation, comprehensively improved the quality of equipment operation.
- The Company's average daily downtime has been reduced from about 500 at the end of 2018 to less than 100 this year, a decrease of 80%. The average wind turbine failures is 1.05 times / unit, a year-on-year decrease of 0.42 times / unit, achieving this year's management goal ahead of the schedule.
- The Company actively promoted the technical improvement project of the crawler-free device, completed the installation of 5,058 wind turbine-free devices, reduced the labor intensity of front-line employees, and effectively improved the work effciency.

Social Welfare

Longyuan actively takes the responsibility as a corporate citizenship, insists on the principle of "developing enterprise and nurturing society in synchronization", actively conveys warmth and care, fulfills its due obligations in serving the community, participating in public welfare and volunteering, takes part in social public welfare activities, contributing more to the harmonious development of the society.

Longyuan Canada's Dufferin Wind Farm is a diamond-level sponsor for the Autumn Agricultural Trade Fair in Dundalk Town.

01 / Serving the Community

Upholding the principle of win-win through collaboration, the Company actively serves the local community, vigorously implements localized operation, establishes regular communication and exchange mechanism with local representatives in the process of project development, construction and operation, tries to strengthen the contact with local governments, maintains good communication with local competent authorities, actively adopts reasonable suggestions of local governments, enterprises and residents, improves local infrastructure, shares welfare facilities of the company with local communities, promotes local energy development, and promotes the healthy development of local economy.

CLASSIC CASE

Longyuan Canada participates in local community activities

In 2019, Longyuan Canada actively fulfills its social responsibilities and established close collaboration with the communities and government agencies where the Dufferin Wind Farm is located. It became a diamond-level sponsor for the autumn agricultural trade fair held by local Dundalk Town Government; it supported local youth hockey team activities and hockey games in the community, establishing a good corporate image and reputation of Dufferin Wind Farm, setting up harmonious community relations, winning appreciation from the local community and the government.

02 / Social Welfare Participation

The Company participated in social welfare activities with great passion and continues to promote the “Longyuan Green Care” program, winning trust and respect by its integrity, devotion and efforts for joint development, working hard to achieve the harmonious development of the enterprise and the society. This year, Longyuan guaranteed the registration rate of the China Public Welfare Platform, promoted the "Poverty Alleviation Day", and actively carried out work such as disaster relief, aiding students and helping the disabled and poverty alleviation, repaying and contributing to the society through multiple channels.

The Party branch of Dabancheng of Longyuan Xinjiang Company extended regards to police officers of Chaiwobao Police Station, greeted and expressed gratitude with Spring Festival blessings to the front-line personnel fghting against terrorism and maintaining stability.

The Party Committee of Longyuan Guizhou Company was awarded the title of Advanced Party Organization for Poverty Alleviation Endeavors in Bijie City.

Longyuan Zhongneng Company carried out the charity donation of Green Zhongneng Clothing Relationships with employees actively donating clothing.

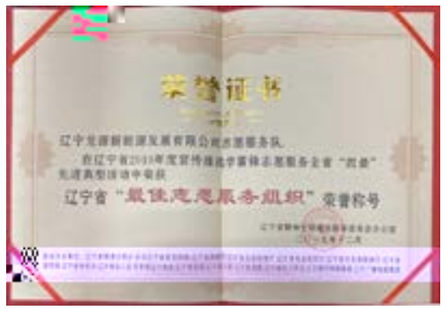
Longyuan Guangdong Company donated money to help Longchuan fght against foods.

On April 12, 2019, the Youth League Committee of Longyuan Jiangxi Company and Tonggu County No. 2 Middle School carried out the "Wind Power Knowledge into the Campus" hiking research activity.

On September 1, 2019, Longyuan Jiangsu Offshore Wind Power staff discovered and successfully rescued in time the members of the Rare Bird Conservation Association who fell and were trapped in the sea during routine monitoring and inspection work.

03 / Volunteering Service

The Company strongly supports employees to provide volunteering services and establishes a standardized and effective volunteering service mechanism. More and more employees are encouraged to get involved in it, which gradually socializes the volunteering service of the company and attracts and drives more social forces to participate in volunteering service provision.150 volunteering service teams of the Company conducts 43 voluntary service projects such as safe electricity use in rural areas and assistance to students in diffculty to help the harmonious development of society over the years.



In December 2019, the volunteer service team of Longyuan Liaoning Company was awarded the title of "Excellent Volunteer Service Organization for Learning from Leifeng".

In November 2019, Longyuan Yunnan Company participated in civilized transportation promotion and intervention volunteer work themed as Civilized Cities Model for Civilized Units.

Cai Chengpeng, a young volunteer from Longyuan Zhejiang Company's Wenling Jiangxia Tidal Power Station, as the only candidate recommended by the China Energy Group Youth League Committee, participated in the fourth national volunteer trainer course jointly organized by the Youth League and the China Youth Volunteers Association.

Longyuan Gansu Qiaodong Wind Farm was selected as Nankai University social practice base for Serving Belt and Road Initiative.

ENVIRONMENTAL RESPONSIBILITY

Energy Conservation and Emission Reduction

Longyuan actively shoulders its responsibility for environment, has long been sticking to the concept of green development, adhering to the environmental protection policy of "protecting the environment, preventing pollution, carrying out environmental governance according to law, and developing sustainable green power". It actively implements the national energy conservation and emission reduction policy and focuses on the development of clean energy. The Company's new energy power generation business itself is an environmentally friendly business that protects the environment and does not consume resources. The power generation process does not consume fossil fuels and water, nor emits exhaust gas, greenhouse gas, pollutants and hazardous waste, leaving no significant adverse effects on resources. While developing new projects, the Company does not forget to save energy and reduce emissions as well as strives to maximize green benefts.

- The Company strictly abides by the national air pollutant emission

CLASSIC CASE

Longyuan Inner Mongolia Company Xiaonanying Wind Power Clean Heating Technology Reform Project Contributes to Blue Sky and White Clouds

In December 2019, Longyuan Inner Mongolia Company 's new energy wind power clean heating technology renovation project was launched to provide heat to a stone processing park in Ulanqab with a heating area of approximately 100,000 square meters, marking the success of Xiaonanying 's wind power heating technology renovation project start up and its entering to the trial operation phase. This wind power clean heating project is estimated to save more than 4,500 tons of coal annually, reduces annual carbon dioxide emissions by 11,790 tons, 38.25 tons of sulfur dioxide, 33.3 tons of nitrogen oxides, and 18 tons of soot. The Company actively responded to the “Win the Blue Sky Defense War” of the autonomous region, actively advocated and implemented a clean wind heating project, making great contributions to local energy conservation, emission reduction and environmental protection.

A Glance of Xiaonanying wind power clean heating technology renovation project of Longyuan Inner Mongolia Company

Environment Management

The Company constantly improves its environmental management system, strengthens environmental control, and raises awareness of environmental protection. It adopts various measures to strengthen environmental protection during the construction and operation phases of the project. The Company puts the environmental protection and management of water and soil conservation of the project construction at the same important position as the project safety and quality management. Under the regulatory control, the relationship between the speed of development and the quality of the project, the expansion of the scale and the economic benefts, the ecological red line and the bottom line of environmental protection are strictly observed to ensure that no environmental safety accidents and no debt of environmental protection and water conservation will occur. During the reporting period, there were no violations of national environmental laws, regulations and policies.

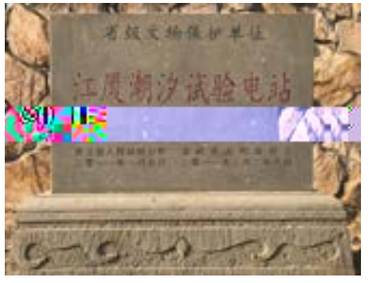
During the construction period, the Longyuan Ningxia Company Yanchi West Dajing Project Department always adhered to the principle of protecting nature and was awarded a Green Energy, Harmonious Development banner by the local government.

Longyuan Guizhou Company Weining Xiaohai Wind Power Project implemented the principle tht water and soil conservation construction designs, constructs and puts into operation with the major engineering construction. The picture shows the water and soil conservation governance achievement demonstration.

02 / Green Management

While effectively controlling noise and sulfur dioxide emission, Longyuan Power builds a clean development mechanism, implements green management, protects vegetation, enlarges the greening areas of the headquarters, affliated enterprises and surrounding areas as much as possible, protects the local ecological balance, tries to deliver green power to the society. It increases investment in environmental protection, completes 116 environmental protection water conservation technology transformation projects, builds ecological wind farms nationwide to achieve green and sustainable development.

The Yilan river protection volunteer team from Longyuan Heilongjiang Company picked up white garbage along the Songhua River in Yilan County, cleaned up the riverside and carried out a live and on-site teaching of ecological environment protection.

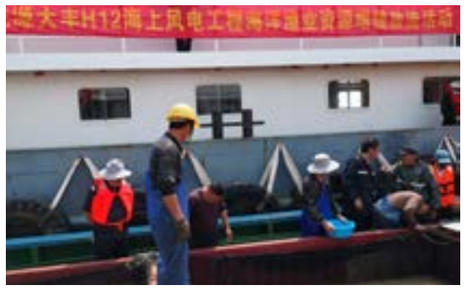


Longyuan Zhejiang Company Wenling Jiangxia Tidal Power Station was selected as the eighth batch of National Important Heritage Conservation Unit.

Longyuan Hunan Company carried out Green Project Grows Hope voluntary tree planting activity.

Biological Conservation

Longyuan Power has always complied with the requirements of laws and regulations related to environmental protection, paid full attention to and considered the potential impact of the project on the surrounding environment, strictly carried out the preliminary environmental assessment of the project, carefully planned and implemented the vegetation restoration and environmental protection after project operation, constantly focuses on the integrity and protection of biodiversity in the protected area, so as to ensure that the ecological environment with reasonable structure and stable system was formed in the field. In 2019, the company continued to build and participate in a number of projects and activities to protect biodiversity, and continued to win the respect of the government and people where it operates.



In the spring and autumn of 2019, Longyuan Jiangsu Offshore successfully organized Dafeng (H12) 200MW offshore wind power project to carry out marine ecological restoration and rtificial propagation and release activities with 8.57 million fsh fry released throughout the year.

01 / Marine Organism

In the construction and operation of offshore wind farm, Longyuan Power attaches great importance to the protection of marine fshery resources, and fry stocking is regularly adopted to improve the breeding and growth of fshes. At the same time, the company closely observes the changes of biological resources in the reservoir area during the operation of tidal power station to protect the normal growth of related organisms.

02 / Wildlife

In the development and construction of wind farm, Longyuan Power pays attention to the influence of wind turbines on bird's migration. It ensures that the spacing between wind turbines can have birds fy cross safely and paints warning colors to help avoid bird impacts, minimizing the probabiiity of birds fying at night impacting blades. At the same time, the company also protects the growth of other wildlife.

Longyuan organizes staffs from the headquarters and Beijing to carry out low-carbon walking activities

Low Carbon Actions

Longyuan Power actively promotes and advocates the low carbon concept and behavior, cultivates and promotes voluntary emission reduction in China, helps enterprises or individuals who are interested in voluntary emission reduction to offset their own carbon emissions, and promotes the low-carbon development. The Company promotes the concept of "green office", calls for paperless office and paperless meetings to create a good atmosphere for green office. It guides employees to low-carbon life, to save resources and to protect the environment.

Responsibility Planning

According to the established roadmap for social responsibility work from 2015 to 2020, looking forward to 2020 and the future and based on the social reponsiblity work from 2015 to 2019, Longyuan Power porposes responsibility planning as follows:

Actively and proactively communicate with stakeholders, act on stakeholders' consensus and participation, obtain broad consensus and strong support from the society, ensure the company's social responsibility work advancement.

Continue to exert efforts, change to advance, allocate corresponding resources, add pilots of corporate's social responsibility work and management, expand coverage, promote integration, steadily develop to achieve full coverage, all-round integration and full participation of its social responsibility management.

Achieve the ultfÀ ᵐ ⁎ l Mult

Professional Appraisal

As the economy pacing towards globalization and operation environment becoming more complex, corporate social responsibilities has become an important part of the international community's evaluation of enterprises. Therefore, strengthening social responsibility management has become the only way for enterprises to achieve sustainable development. As a large-scale comprehensive power generation company focused on new energy, Longyuan Power sticks to clean energy development, actively implements national energy conservation and emission reduction policies, promotes the construction of beautiful China, and exerts its core social functions; it pays close attention to shareholders, customers, employees, partners and other stakeholders, constantly improves and strengthens the construction of company's social responsibility management system, promotes the company's sustainable development with the society and the environment, showing a responsible image of the company.

This year's Social Responsibility Report marks the seventh report released by the Longyuan Power. The report adopts its previous structure and style and uses the triple bottom line of economy, society and environment as the framework to disclose the practice and key performance of Longyuan Power's social responsibility in 2019, reflecting the positive impact of the integration of the concept of social responsibility on the company's strategic planning and operating practices. On the whole, Longyuan Power's social responsibility information disclosure mainly shows the following characteristics:strengthening social responsibility communication, to maximize the company's economic, social and environmental comprehensive value and to create a better future with its stakeholders.

First, the framework shows more logic. Compared with previous years' reports, Longyuan Power's 2019 Social Responsibility Report puts Honors&Awards before Responsibility Management section, framing a report lined with report descriptions, letters from the management, company profiles, responsibility management, responsibility practices, future prospects and appendices, which is complete in structure and clear in logic.

The second is that the expression of the report is more popular. The social responsibility report is a carrier for communication between the enterprise and stakeholders so that the expression of the report should conform to the reading habits of the stakeholders. Longyuan Power uses plain words to depict the impact of its decisions and activities on the economy, society and environment as well as the value created for the economy and society, not only illustrating its responsibility practices and effects, but also showing the company's comprehensive values.

Nevertheless, as can be seen from the Longyuan Power 's social responsibility report, there is still much room for improvement in Longyuan Power 's future social responsibility work. As a state-owned energy supply enterprise, Longyuan Power can further highlight the characteristics of socialism with Chinese characteristics in the new era as well as the political, economic and social responsibilities of central-government owned enterprise. At the same time, Longyuan Power can further its connection with the world by benchmarking its CSR report with GRI standards, ESG standards and SDGs.

Last but not least, I hopt that Longyuan Power will strengthen its communication and cooperation with stakeholders through the compilation and release of its social responsibility reports, improve its operation transparency, and realize its strategic goals with new management models and mindset, and eventually promote sustainable development between the company, the society and the environmental.

Director of the Corporate Social Responsibility Promotion Center of the China Federation of Industrial Economics
Secretary General of the China Industrial Enterprise Social Responsibility Research Think Tank
Vice President of Chinese Institute of Business Administration
Director of Beijing Rongzhi Enterprise Social Responsibility Research Institute
Wang Xiaoguang

FEEDBACK

Thank you for reading Longyuan Power 2019 CSR Report. We sincerely look forward to your valuable feedback which will improve our report to better demonstrate our will, action and performance on creating economic, social, environmental and comprehensive values in a systematic and scientific way and will help us to improve our corporate social responsibility management and practice.

Your feedbacks

What's your overall evaluation of Longyuan Power's fulfillment of its CSR?
Very Good Good Average Bad

What's your overall evaluation of this report?
Very Good Good Average Bad

How will you evaluate Longyuan Power's CSR fulfillment in creating economic value?
Very Good Good Average Bad

How will you evaluate Longyuan Power's CSR fulfillment in creating social value?
Very Good Good Average Bad

How will you evaluate Longyuan Power's CSR fulfillment in creating environmental value?
Very Good Good Average Bad

Do you think the information disclosed by the report is accurate, clear and complete?
Yes No

Do you think the format and content arrangement of this report is easy to read?
Yes No

What's your opinion and suggestion on our CSR work?

What's your opinion and suggestion on our CSR report?

About You

Name: Company: Position:
Tel: Fax: E-mail:

国家能源集团
CHN ENERGY

Add: #6-9 Fuchengmen North Road, Xicheng District, Beijing
Tel: +86-10-63887601
Fax: +86-10-63887750
Website: http://www.clypg.com.cn
Postcode: 100034

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