



新能源  
New Energy

中國廣核新能源控股有限公司  
CGN New Energy Holdings Co., Ltd.

(Incorporated in Bermuda with limited liability)  
Stock Code : 1811.HK

ENVIRONMENTAL, SOCIAL  
AND GOVERNANCE REPORT  
2019

Doing Things Right in One Go

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# 01 Definitions

In the Report, unless the context otherwise requires, the following terms shall have the meanings set out below:

“the 13th Five-Year Plan”	the 13th Five-Year Plan for Economic and Social Development of the People's Republic of China
“the 19th NCCPC”	the 19th National Congress of the Communist Party of China
“the 2nd and 3rd Plenary Session of the 19th CCCPC”	the 2nd and 3rd Plenary Session of the 19th Central Committee of the Communist Party of China
“Board”	the board of directors of the Company
“CGN”	China General Nuclear Power Corporation, a state-owned enterprise established in China and the controlling shareholder of the Company
“CGN New Energy”, “the Company”, “We”	CGN New Energy Holdings Co., Ltd.
“China”	the People's Republic of China
“EHS”	Environmental Health and Safety
“ESG”	Environmental, Social and Governance
“Group”	the Company and its subsidiaries from time to time
“Hong Kong”	the Hong Kong Special Administrative Region of the People's Republic of China
“Insurances and Housing Fund”	the social endowment insurance, urban employee medical insurance, work-related injury insurance, maternity insurance and unemployment insurance in China
“Korea”	the Republic of Korea
“Listing Rules”	the Rules Governing the Listing of Securities on the Stock Exchange (as amended from time to time)
“MPF”	the Mandatory Provident Fund in Hong Kong
“Mainland China”	the mainland of the People's Republic of China
“National Development and Reform Commission”	the National Development and Reform Commission of China
“National Pension”	the National Pension in Korea
“OHS”	Occupational Health and Safety
“Report”	2019 ESG report of the Company
“Reporting Period”	the period from 1 January 2019 to 31 December 2019
“RMB”	Renminbi, the lawful currency of China
“Stock Exchange”	the Stock Exchange of Hong Kong Limited
“US\$”	the United States dollar, the lawful currency of the United States of America
“%”	per cent

## 02 About the Report

CGN New Energy Holdings Co., Ltd. is delighted to publish its 4th ESG report. The Report aims to present the environmental and social issues related to the sustainable development of the Group to its key stakeholders, for their better understanding of the Group's concept, actions and related performance in sustainable development.

### REPORTING PERIOD AND SCOPE

Unless otherwise specified, the Report mainly describes the specific policies and performance of the Group in sustainable development during the period from 1 January 2019 to 31 December 2019. For the sake of continuity and comparability of the Report, some contents in the Report have been extended as needed. Please refer to the section titled "Comprehensive Performance" in the Report for details on relevant data.

The main contents of the Report cover the Group's wind, solar, gas-fired, coal-fired<sup>1</sup>, oil-fired, hydro, cogen and fuel cell projects as well as a steam project in China and Korea. Contents of the Report are mainly based on and determined through the materiality assessment. Please refer to the chapter headed "Stakeholder Engagement and Materiality Assessment" for details of the process.

### REPORTING STANDARD

The Report is prepared in accordance with the Environmental, Social and Governance Reporting Guide under Appendix 27 of the Listing Rules.

### CONFIRMATION AND APPROVAL

The contents disclosed in the Report are in compliance with the ESG disclosure requirement of "Comply or Explain" in the Environmental, Social and Governance Reporting Guide under Appendix 27 of the Listing Rules. The Report was approved by the Board in March 2020 to ensure that it covers major environmental, social and governance issues of the Group. The Board and all the directors of the Company warrant that there are no false records, misleading statements or material omissions in the Report, and they shall individually and collectively accept full responsibility for the truthfulness, accuracy and completeness of its contents.

### REPORT ACQUISITION AND FEEDBACK

The online version of the Report is published on the Stock Exchange's website ([www.hkexnews.hk](http://www.hkexnews.hk)) and the Company's website ([www.cgne.com](http://www.cgne.com)).

If you have any enquiries, comments or feedback on the Report, please feel free to send an email to [cgne@wsfg.hk](mailto:cgne@wsfg.hk).

<sup>1</sup> Excluding Huangshi I and II Coal-fired Projects in Hubei.



## 03 Chairman's Statement



Chen Sui  
Chairman

Continuing our adherence to the basic principles of “Safety First, Quality Foremost and Pursuing Excellence”, we strengthen the building of core competence and take charge of business management to continuously maintain quality development

## 03 Chairman's Statement

CGN New Energy is committed to providing clean and renewable energy. We integrate the concept of sustainable development into the development of the electricity industry and create value for the society while providing stable electric power supply. As an annual summary of the Group's sustainable development, the ESG report fully demonstrates how CGN New Energy attaches great importance towards sustainable development, discloses the Group's performance in all the aspects of sustainable development, shows our vision and commitment to sustainable development, and at the same time provides us the opportunity to understand our key stakeholders' expectations and demands regarding sustainable development. In the future, we will continue to publish ESG report and further enrich its content according to the expectations and demands of our key stakeholders. We will continue to disclose our current situation, plans and achievements in respect of governance, environmental protection, employee relations and community contribution to the key stakeholders.

In 2019, the world's outlook was full of uncertainties and instabilities. Under the impact of protectionism and unilateralism, the world economy has been on a downward trend, with many countries slowing down at the same time. China stands at a new historical starting point at the 70th anniversary of its founding, while setting out again in embracing the challenges, and continues its reform and opening up to benefit the world with its own development and responsibility. In terms of energy development, the Chinese government has continued to actively adjust the domestic energy structure, further promoted the development of clean energy and launched relevant favorable policies. China's energy development impetus is gradually shifting from traditional energy growth to new energy growth. As of 31 December 2019, China's installed capacity of non-fossil energy power generators reached approximately 840 GW with a growth of 8.7% year-on-year. Among it, 210.1 GW of wind power and 204.7 GW of photovoltaic power were installed, which had a year-on-year growth of 14.0% and 17.4%, respectively. Non-fossil energy accounted for 41.9% of the total installed capacity, which had a year-on-year growth of 1.1 percentage points. The role of renewable energy is becoming increasingly prominent.

In 2019, the policies on photovoltaic power and wind power tariffs were officially announced. The National Development and Reform Commission issued the Notice on Issues about the Improvement of On-Grid Tariff Mechanism for Photovoltaic Power Generation (《關於完善光伏發電上網電價機制有關問題的通知》) and the Notice on Improving the Policies for Wind Power On-Grid Tariff (《關於完善風電上網電價政策的通知》) to confirm the 2019 on-grid tariff mechanism for photovoltaic power generation and the guiding tariffs for onshore and offshore wind power in 2019 and 2020. The changes in the industry policies will subvert the original development pattern relied upon by the industry, causing enormous impacts on the strategic deployment, project development, technology evaluation, investment approval, project construction, production operation and maintenance of investment enterprises. While the wind power and photovoltaic power industries are ushering in a modest profit era led by grid parity and competitive bidding mechanisms, cost leadership strategy has become the competition strategy of new power generation enterprises to maximise their investment returns in the market.

The Group always adheres to the mission of "develop clean energy to benefit mankind", seizing the opportunities in the industry, maintaining a quality, efficient and innovative development, and actively creating a diversified asset profile, and a mature model of operation and management. On the one hand, great efforts will be made to consolidate our advantages in wind power and solar power projects and enhance the market competitiveness of CGN New Energy. On the other hand, we will hold fast to the basic principles of "safety first, quality foremost, pursuing excellence", to continuously improve the talent selection and training mechanism, to optimize team building and internal governance, to safeguard the legitimate rights and interests of key stakeholders including shareholders and to enhance corporate brand value.

**Chen Sui**  
Chairman

26 March 2020

## 04 President's Statement



Li Yilun  
President

With an aim to thoroughly achieve high-quality and sustainable development, we will adhere to reform and innovation for enhancing and expanding our new energy business

## 04 President's Statement

The year 2019 marks the 70th anniversary of the founding of the People's Republic of China. It is also a crucial year for China to complete the building of a moderately prosperous society in all respects and achieve its first centenary goal. This year, China continued to push forward the implementation and launch of a number of policies and pilot projects, and the reformation of the energy system entered upon a new phase. According to the Plan for New Construction Scale of Wind Power from 2017 to 2020 and the Plan for New Construction Scale of Photovoltaic Power Station from 2017 to 2020, the cumulative new construction scale of wind power and photovoltaic power generation in China from 2017 to 2020 will reach 110.41 GW and 86.5 GW respectively, presenting significant opportunities for the development of the wind power and photovoltaic power industries. Under the guidance of the report of the 19th NCCPC and the spirit of the 2nd and 3rd Plenary Session of the 19th CCCPC, renewable energy will usher in a stage of a high-quality development, and the issue of clean energy consumption is expected to be further improved. In 2019, China's non-fossil energy accounted for 32.6% of the country's electricity generation. As of 31 December 2019, the Group's power generation projects had an attributable installed capacity of 6,286.0 MW with the power generation of about 13,541 GWh, while clean and renewable energy projects (i.e., wind, solar, gas-fired, hydro and fuel cell projects) accounted for 72.4% of our attributable installed capacity.

During the Reporting Period, CGN New Energy has made a number of major breakthroughs in the development of clean energy. Newly added attributable installed capacity of CGN New Energy was over 1,000 MW, among which the attributable installed capacity of wind power increased by 43.9% and the attributable installed capacity of solar power increased by 116.5%. In addition to actively developing new energy projects, the Group also adheres to the principle of "environmental protection first" in the process of project operation. In site selection, construction and operation, the Group persisted in carrying out protection work of the ecological, atmospheric, and aquatic environment, and has been consistently pursuing sustainable development.

In addition to implementing the concept of green development, CGN New Energy actively fulfills its social responsibilities in terms of employee remuneration and social investment. The clean energy industry is a relatively brand-new sector that has expanded rapidly in recent years and is in desperate need of manpower. We value the contribution of our employees. Apart from our regular review of employee benefits, we have carried out a number of employee-oriented activities this year. We also attach great importance to safe production. During this year, we continued to organize various safety training programs and invited experts to enrich our employees' knowledge in safety. While caring for employees' needs, we also attach importance to the development of communities around our business operation sites. In 2019, we continued to hold various community care activities with the themes of poverty alleviation, education and environmental protection, which were widely recognized by the local government and the public. Through these activities, a harmonious and win-win situation is realized between the Group's development and the community.

Looking ahead, clean energy remains the focus of the national energy revolution, and it is expected that its development will continue to be supported by relevant favorable policies. CGN New Energy will always adhere to the basic principles of "safety first, quality foremost, pursuing excellence", continuously improve the talent selection and training mechanism, optimize team building and internal governance, so as to achieve the goal of consolidating the foundation for the Group's sustainable development and contribute to the green energy development of the country and even the region.

**Li Yilun**  
President

26 March 2020



## 05 Distribution of Projects



Wind



Solar



Gas-fired



Cogen



Coal-fired



Oil-fired



Hydro



Steam

### Henan



	Total Installed Capacity	Equity
Lankao Lanyang	10 MW	100%
Yuzhou Changzhuang	76 MW	100%
Fugou Caoli	20 MW	100%
Xuchang Yanling	79.2 MW	100%
Yongcheng Hanxing	50 MW	100%
Shenqiu Zhaodeying	10 MW	100%
Shenqiu Fanying	10 MW	100%



Puguang	250 MW	59.5%
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Jiyuan Juli	5.7 MW	100%
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### Inner Mongolia



	Total Installed Capacity	Equity
Wuhai	50 MW	100%
Chayou Zhongqi	30 MW	53.67%
Chifeng New Golden Energy	60 MW	74%
Kezuo Zhongqi	23 MW	65%
Tianze	30 MW	100%

### Gansu



	Total Installed Capacity	Equity
Beiba	199.5 MW	100%
Minqin I	49.5 MW	100%
Minqin II	49.5 MW	100%
Hongshagang	400 MW	100%
Daliangdong	47.5 MW	100%
Daliangbei	47.5 MW	100%
Liuyuan	49.5 MW	60%



Jinta	9 MW	100%
Dunhuang I	9 MW	100%
Dunhuang II	9 MW	100%
Jiuquan	60 MW	100%

### Shaanxi



	Total Installed Capacity	Equity
Yan'an Airport	0.7 MW	100%

### Qinghai



Haorun	50 MW	100%
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Xitieshan I	10 MW	100%
Xitieshan II	30 MW	100%
Xitieshan III	60 MW	100%
Wulan	30 MW	100%
Ledu	30 MW	100%

### Sichuan



Mianyang	51 MW	75%
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### Hunan



Jiajia	6 MW	100%
XEMC	8.5 MW	100%

### Guizhou



Zhenfeng	30 MW	100%
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### Guangxi



Fushi I	54 MW	70%
Fushi II	18 MW	100%
Zuojiang	72 MW	60%

### Guangdong



	Total Installed Capacity	Equity
Airport I	9.9 MW	100%
Airport II	4.5 MW	100%
Shangyang	2 MW	100%

### Hainan



	Total Installed Capacity	Equity
Wenchang Liyang	20 MW	100%

### Shanxi



Datong Majialiang I  
Taigu Fancun

#### Total Installed Capacity

50 MW  
99 MW

#### Equity

100%  
100%

### Hebei



Ren County I

#### Total Installed Capacity

39.6 MW

#### Equity

100%

### Korea



Daesan I

#### Total Installed Capacity

507 MW

#### Equity

100%



Yulchon I

577.4 MW

100%

Yulchon II

946.3 MW

100%

Yulchon Fuel Cell

4.8 MW (Phase I)

100%

5.6 MW (Phase II)

100%

5 MW (Phase III)

100%

10 MW (Phase IV)

100%

### Shandong



Tangwangshan I

#### Total Installed Capacity

20.4 MW

#### Equity

100%

Taipingshan I

49.3 MW

100%

Linqu Longgang

48 MW

100%

Liuwangzhuang

38.3 MW

100%

Shagou I

49.5 MW

100%

Tangwangshan II

49.5 MW

100%

Anqiu Huangminshan

59.4 MW

100%

Qingyun Zaoyuan

44 MW

87%

Laoling Zhuji

39.6 MW

100%



Laoling Tieying

15 MW

100%

Laoling Tieying II

20 MW

100%

### Jiangsu



Guangyang Lake

#### Total Installed Capacity

101.2 MW

#### Equity

51%



Haian

27 MW

100%

Nantong

63 MW

100%



Siyang Beichuan

31 MW

100%

### Shanghai



Jinqiao

#### Total Installed Capacity

240 tons/hour

#### Equity

60%



Tongce

4.5 MW

100%

### Anhui



Hefei Hi-tech Sinotrans

#### Total Installed Capacity

4.6 MW

#### Equity

100%

Dangtu

260 MW

100%

Dingyuan I

30 MW

100%

### Zhejiang



Ninghai Yishi

#### Total Installed Capacity

48 MW

#### Equity

100%

Tuci

30 MW

100%

Zhushan

45 MW

100%



Jiaxing

10.6 MW

100%

### Hubei



Hanneng

#### Total Installed Capacity

176.5 MW

#### Equity

60%



Huangshi I

660 MW

49%

Huangshi II

1,360 MW

49%

### Fujian



Fuchuan Yifan

#### Total Installed Capacity

8.9 MW

#### Equity

100%

## 06 Highlights of 2019

### FINANCIAL AND OPERATING HIGHLIGHTS

Revenue	US\$1,276 million, decreased by 6% as compared with 2018 (2018: US\$1,358 million)
EBITDA	US\$399 million, increased by 15% as compared with 2018 (2018: US\$347 million)
Net profit attributable to owner of the Company	US\$111 million, increased by 26% as compared with 2018 (2018: US\$88 million)
EPS	2.59 US cents, increased by 26% as compared with 2018 (2018: 2.06 US cents)
Attributable installed capacity	6,286 MW, increased by 19.2% as compared with 2018 (2018: 5,275 MW)
Power Generation	13,541 GWh, increased by 1.8% as compared with 2018 (2018: 13,305 GWh)

Clean and renewable energy portfolio	Attributable installed capacity	Year	Attributable installed capacity	Conventional energy portfolio
Solar, Wind, Hydro, Gas-fired	4,550.4 MW (72.4%)	2019	1,735.6 MW (27.6%)	Coal-fired, Oil-fired, Cogen
	3,504.9 MW (66.5%)	2018	1,769.6 MW (33.5%)	
	3,192.8 MW (64.3%)	2017	1,769.6 MW (35.7%)	

- The environmental protection facility project of a 100 MW photovoltaic project, which is an entrusted management project of CGN New Energy located in the coal mining subsidence area of Yangquan City, Shanxi Province, was completed and accepted.



## 06 Highlights of 2019

- CGN New Energy signed a strategic cooperation agreement with Fujian Shipbuilding Industry Group Company Limited to jointly promote the high-quality development of offshore wind power in Fujian.



- CGN New Energy Anhui Dangtu 260 MW photovoltaic project, the largest single parity photovoltaic project in east China, was successfully put into operation.



The Report basically presents the financial and business status of CGN New Energy in 2019. For details, please refer to our Annual Report 2019.



# 06 Highlights of 2019

## PERFORMANCE OF ENVIRONMENTAL PROTECTION

Facing the increasingly serious environmental challenges, CGN New Energy has continuously implemented the ecological and environmental protection concept of “lucid waters and lush mountains are invaluable assets”. It incorporates green and environmental considerations in the entire process of projects from site selection, deliberation, construction to operation and maintenance to expand the clean energy business. As to environmental protection and water conservation, we always adopt the “three-in-one” approach of “environmental protection first in preliminary design, striking a balance between construction progress and environment construction, and incorporating environmental considerations in production” and roll out a variety of initiatives on ecological and landscape protection, atmospheric environment protection, water environment protection, and various energy and resources conservation.

In 2019, the Group’s power generation volume of solar, wind and hydro portfolio were 4,796.2 GWh, contributing to the power industry for addressing global climate change, reducing air pollution and mitigating environmental impacts.

In 2019, generation of the following pollutants was reduced<sup>2</sup>:

Carbon dioxide (CO <sub>2</sub> )	4,033,604.20 tonnes
Nitrogen oxides (NO <sub>x</sub> )	911.28 tonnes
Sulfur dioxide (SO <sub>2</sub> )	959.24 tonnes
Smoke and dust	191.85 tonnes
Wastewater	287,772.00 tonnes

## EMPLOYEES’ CAREER DEVELOPMENT AND OCCUPATIONAL HEALTH AND SAFETY

A good employee team brings a steady stream of development impetus for CGN New Energy. Considering the business nature of the Group, we design and customize high-quality training programs. We will also invite senior and part-time lecturers to give content-rich and practical lectures according to the actual needs from the corporate level to employees. In addition, we always adhere to the basic operating principle of “safety first”, standardize the occupational health code, provide staff with personal protective equipment, arrange physical examination, and provide diversified safety training.

## COMMUNITY CONTRIBUTION

CGN New Energy implements the operational philosophy of “good neighbour, good friend and good partner” to continuously contribute to society. Upholding the principle of harmonious growth, apart from economic development, the Group will launch a wide range of poverty alleviation projects including industrial poverty alleviation, education development support, public science education and emergency relief, etc. We strive to integrate our operation into the development of local community so as to achieve win-win results.

<sup>2</sup> The data were calculated according to the emission and discharge volume of carbon dioxide, nitrogen oxides, sulfur dioxide, soot and wastewater per unit of electricity generated by thermal power plant stated in the *Annual Development Report 2019 of Power Industry in China*, and referring to the Group’s power generation data of solar, wind and hydro portfolio during the Reporting Period.

## 07 About CGN New Energy

### COMPANY OVERVIEW

CGN New Energy, listed on the Main Board of the Stock Exchange, is an independent power producer in Asia with diverse fuel types and geographical coverage. CGN is our controlling shareholder, which owns 72.29% of share capital of the Company through its indirectly wholly-owned subsidiary, CGN Energy International Holdings Co., Limited.

Our assets portfolio currently comprises wind, solar, gas-fired, coal-fired, oil-fired, hydro, cogen and fuel cell projects as well as a steam project located in China and Korea power markets. Our business covers 17 provinces, two autonomous regions and a municipality in China. As of 31 December 2019, the gross attributable installed capacity of the Group reached 6,286 MW. In terms of the overseas market, we had 2 gas-fired projects and 1 fuel cell project with 4 phases in Yulchon, Korea, as well as 1 oil-fired project in Daesan.

### CORPORATE VALUE

We adhere to the core value of “doing things right in one go” and adopt an orientation based on its basic value. As the decomposition, extension and supplementation of the core value, all employees of the Group should follow the value orientation in their work execution.

Corporate basic values	Accountable:	Being willing to do things, capable of doing things and getting things done
	Rigorous and pragmatic:	Being practical, performance-based and result-oriented
	Innovative and enterprising:	Pursuing enterprise, innovation and excellence
	Client-oriented:	Viewing clients' needs as our own
	Value adding:	Each and every one being a value creator

### BRAND STANDARDS

“Natural energy powering nature” is the brand slogan that every CGN personnel is proud of. CGN New Energy takes safe, clean and sustainable energy as its brand positioning, pays close attention to it and puts it into practice. In terms of the design, construction, operation and energy resources utilization of power generation projects, the Group focuses on the future and insists on minimizing the environmental and social impacts of various production activities. The Group adheres to CGN's consistent personnel management principles and strives to become the industry benchmark in the field of new energy.

### INTERNAL CODE OF CONDUCT

1. 4 principles for CGN staff: Integrity and transparency, professionalism, efficient execution and team work
2. 4 principles for management team: Being a good example, capable operation, caring for employees, fair and integrity

## 07 About CGN New Energy

### HONORS AND AWARDS

Year 2019

- CGN New Energy won the “2019 Hong Kong Corporate Governance Excellence Award” by CHKLC and the Centre for Corporate Governance and Financial Policy of Hong Kong Baptist University



- CGN New Energy won the InnoESG Prize in Hong Kong, which was held by Society Next Foundation and other organizations



- CGN New Energy won the “Best IR by Chairman/CEO”, “Best IR Company”, and “Best Investor Meeting” by the 5th Investor Relations Awards of Hong Kong Investor Relations Association



## 07 About CGN New Energy

- The project “The Establishment and Application of 3x3x3 Grid Quality Management System in Wind Power Plant” in Huangminshan, Anqiu, Shandong Province won the excellence award of the quality technology award of China Quality Association in 2019. At the same time, it has won the title of 2018 Excellent Wind Farm in the power industry and the 5A rating



- Wuhai 50 MW Photovoltaic Base Project in Inner Mongolia Autonomous Region was awarded the “China Power Quality Project of 2019”, which is the first mountain photovoltaic power generation project in China to be awarded the prize, and it was awarded two certificates of engineering and production





## 07 About CGN New Energy

Year 2018

- Two informatization projects of CGN New Energy won the “Second Prize of 2018 Annual Power Innovation Award” respectively
- 11 clean energy power stations owned by CGN New Energy won the title of “Energy Science Education Base”



- “2018 National Outstanding Wind Power Development Unit” by China Wind Energy Association



- Ninghai Yishi Wind Farm Project won the title of “National Water and Soil Conservation Ecological Civilization Project” by the Ministry of Water Resources in China
- The Best Corporate Governance Award and the Best Annual Report Design Award of “2017 China Financial Market Awards for Listed Companies”

## 07 About CGN New Energy

Year 2017

- Inner Mongolia regional project entrusted to be managed by CGN New Energy won the “Second Prize of 2017 Annual Power Innovation Award”
- Rudong Offshore Wind Farm entrusted to be managed by CGN New Energy was elected as the “Top 10 Excellent Wind Power Farms of Top 50 Wind Power Industry in 2017”
- 4 Xinjiang regional electric power plants entrusted to be managed by CGN New Energy won the “First Prize in 2016 Annual Wind Farm Operation Indicator Competition”
- Jialaibo Wind Farm entrusted to be managed by CGN New Energy was honored with “2016 Lancang County Economic Growth Outstanding Contribution Award”
- Hongyan Wind Farm Project entrusted to be managed by CGN New Energy won the title of “2017 China Electric Power Quality Project”



- Menghai Wind Farm entrusted to be managed by CGN New Energy won the title of “Environment-friendly Enterprise” by Xishuangbanna power industry



- Yixian Wind Farm entrusted to be managed by CGN New Energy won the title of “Friendly Wind Farm” in Liaoning Province

## 07 About CGN New Energy

- “Most Potential Listed Company Award” in the “2016 China Financial Market Listed Companies Awards”



- Awarded the “Most Progress in IR” in the “3rd Investor Relations Awards” organised by the Hong Kong Investor Relations Association (HKIRA)

## 08 Stakeholder Engagement and Materiality Assessment

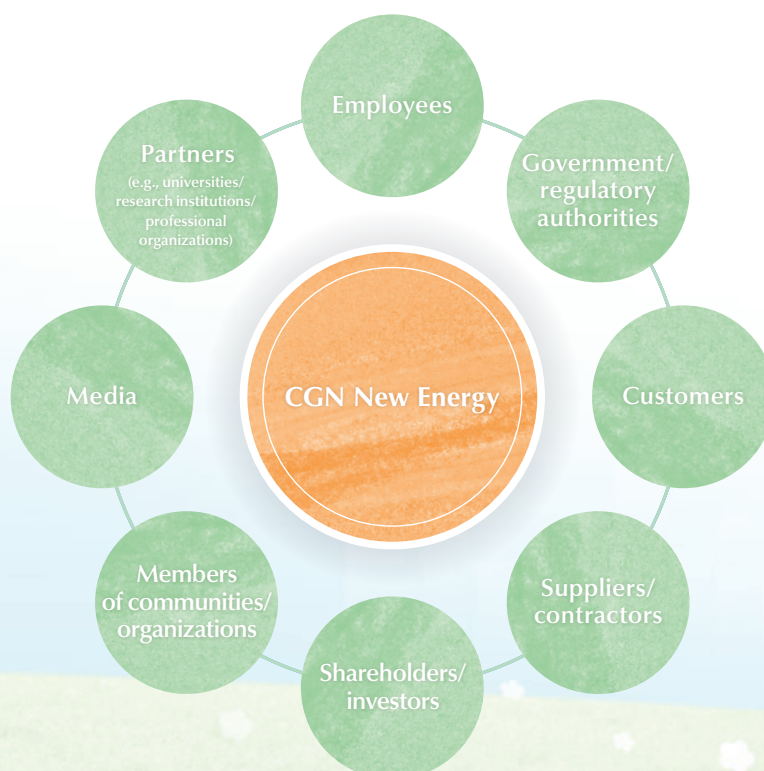
### COMMUNICATION WITH STAKEHOLDERS

Maintaining good communication with stakeholders is an important part of CGN New Energy's long-term development management. The Group regularly discusses with relevant departments to identify the key stakeholders related to our own operation, and communicates with them through meetings, regular visits, satisfaction surveys and other channels, so as to understand their expectations and interests on the Group's development process and future developments. The Group will take measures with an endeavour to respond to and meet the demands of key stakeholders according to its production and operation situation.

CGN New Energy determines whether the relevant individuals or groups are our key stakeholders mainly through the following three aspects:

- Whether they have invested or will invest in CGN New Energy
- Whether they have an influence on the business operation of CGN New Energy
- Whether they have interests in or are affected, potentially or otherwise, by the business, products, services, and relationships of CGN New Energy

We have identified the following 8 types of individuals and groups as our key stakeholders:



In developing, designing, constructing, and operating various power generation projects, CGN New Energy attaches great importance to the valuable opinions from key stakeholders. In the preliminary design stage of various power generation projects, we will conduct open consultation, extensively collect the opinions of the surrounding residents on the development of the project, deeply understand the concerns of the relevant residents, and appoint a professional environmental assessment agency to conduct a comprehensive environmental impact assessment of the project and formulate impact mitigation plans, so as to minimise the potential impact of the development of the project on the surrounding environment and communities.



## 08 Stakeholder Engagement and Materiality Assessment

The channels and frequency of our communication with key stakeholders are as follows:

Key stakeholder	Main communication channel	Frequency
Employees	Employee meeting/forum Employee performance appraisal interview Employee satisfaction survey On-site investigation and research Employees' leisure time activities and voluntary activities	Annually
Government/regulatory authorities	Telephone/email Meeting and interview	From time to time
Customers	Telephone/email Interview	From time to time
Suppliers/contractors	Issue invitation for bids on procurement of products/ services Inspection and supervision of work Supplier conference Telephone/email Interview	From time to time
Shareholders/investors	Shareholders' meetings Investor conferences Press releases/announcements Annual/interim results presentations Analyst seminars Roadshows Visits Corporate Day	During the Reporting Period, the Company attended "Corporate Day" held by investment banks and securities firms to meet with approximately 100 investors of different types in Beijing and Shanghai. In addition, the Company organised roadshows in Hong Kong.  Shareholders' meetings are held annually in general, while other events such as investor conferences, analyst seminars and roadshows are held from time to time based on actual needs.
Members of communities/ organisations	Telephone/email Interview	From time to time
Media	Press releases/announcements Media special interview	During the Reporting Period, the Company constantly updated the media and the public on the latest development of CGN New Energy through press releases and announcements.  Media interviews are conducted from time to time based on actual needs.
Partners (e.g., universities/ research institutions/ professional organizations)	Inspection and supervision of work Telephone/email Interview	From time to time

## 08 Stakeholder Engagement and Materiality Assessment

### MATERIALITY ASSESSMENT

In order to reflect CGN New Energy's environmental, social and governance impacts to the fullest extent in the Report, and considering the request by key stakeholders for the Group's information in the above areas, the Group identified the material topics to be disclosed in the 2019 ESG Report through the following materiality assessment process.

Process for identifying material topics

Step 1 Identify the most relevant ESG topics related to CGN New Energy

Step 2 Conduct survey of materiality assessment

Step 3 Create the materiality matrix according to the survey result and identify the priority topics

Step 4 Review and confirm the materiality of identified topics

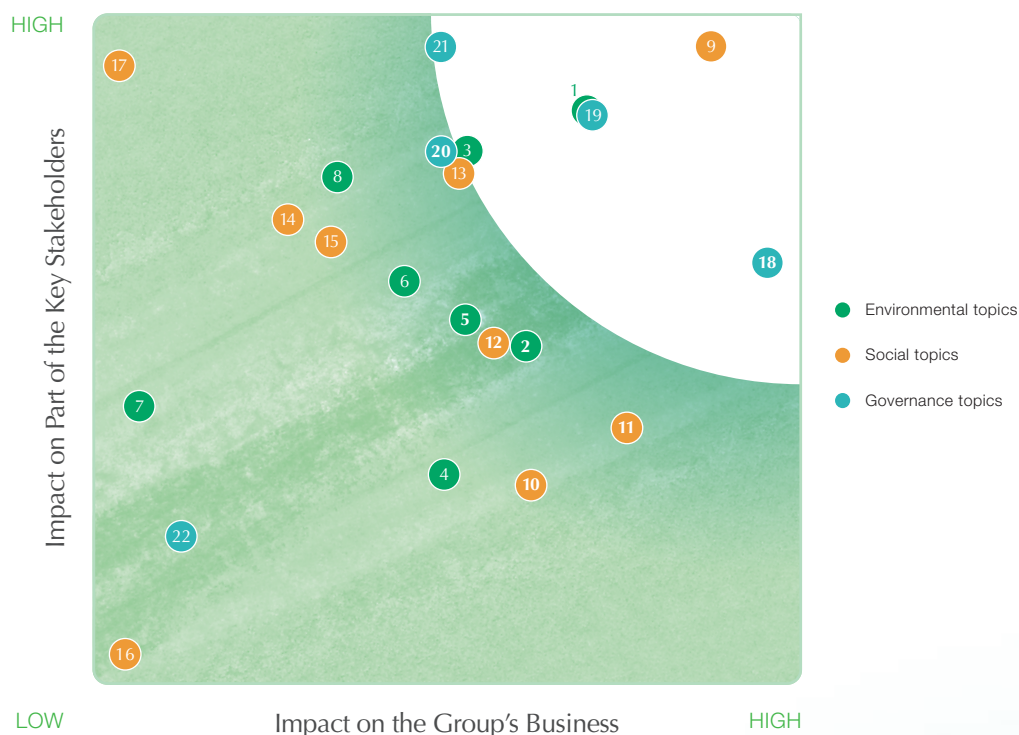
In identifying the most relevant ESG topics related to CGN New Energy, we have considered the current industry background and trends and based on the Group's strategy and business characteristics, with reference to relevant standards or guidelines for sustainable development.

The Group conducts a comprehensive materiality assessment every year to confirm the topics of the Report that are of most concern to CGN New Energy's key stakeholders and to identify the information that needs to be highlighted in the Report. During 2019, the Group conducted a survey on material topics with the assistance of a professional consultancy.

Through an anonymous questionnaire survey method, the Group widely collected and solicited opinions from part of the Group's key stakeholders. The survey collected a total of 931 valid questionnaires from the Company's management, employees, suppliers, shareholders/investors, and partners. Based on the feedback from stakeholders and confirmation from the Company's management, the material topics of the 2019 ESG Report were finally determined.

## 08 Stakeholder Engagement and Materiality Assessment

Matrix of CGN New Energy 2019 Materiality Assessment



Environmental topics	Social topics	Governance topics
<b>1 Project related protection of ecological environment and natural resources</b> 2 Water use and efficiency <b>3 Energy use and efficiency</b> 4 Effluent discharge and management 5 Exhaust gas emission and management 6 Solid waste disposal and management 7 Greenhouse gas emission and management 8 Project environmental impact assessment and related mitigation measures	<b>9 Occupational health and safety of employees</b> 10 Employee benefits and promotion mechanism 11 Career development and training for employees 12 Employment and employee welfare <b>13 Compliance with labour legislation</b> 14 Labour standards 15 Service quality assurance 16 Community investment and participation 17 Supply chain management	<b>18 Anti-corruption</b> <b>19 Social and economic compliance</b> <b>20 Compliance information disclosure</b> <b>21 Financial performance and investor interests</b> 22 Anti-competitive behaviour

Through the comprehensive analysis of the data and information collected in the survey, CGN New Energy obtained the survey findings of material issues as listed in the above matrix and identified 8 material topics (i.e. items 1, 3, 9, 13, 18, 19, 20, and 21 as shown in the above table) that relevant stakeholders are most concerned about. The results of the analysis have been endorsed by the Group's senior management. The Report will focus on these important issues and address the needs of stakeholders for information subject to the Listing Rules of the Stock Exchange.

## 09 Corporate Governance

CGN New Energy pursues practical, robust and prudent corporate governance concept, through formulating rules and regulations, to strengthen internal control and improve the operational risk management.

### GOVERNANCE STRUCTURE

Maintaining an efficient, orderly, transparent and robust corporate governance mechanism is the foundation for CGN New Energy's sustainable development. Since listing, the Company has strictly abided by the Listing Rules and the Corporate Governance Code under Appendix 14 of the Listing Rules, as well as other relevant laws and regulations. The Company reviews its business management policy from time to time, implements efficient corporate governance, and strives to enhance corporate value to ensure the sustainable and steady development of the Group.

CGN New Energy believes that good corporate governance is essential to the Group's internal governance and the interests of shareholders. We have a corporate governance structure consisting of the Board and board committees, internal auditors, shareholders, management and employees. In the form of multi-participation, the comprehensive coverage of the Group's governance policy and the effectiveness of its implementation are further consolidated.

As the supervisor of the Company, the Board is responsible for formulating and approving policy matters, improving strategic guidelines, maintaining risk management and internal control systems, and supervising the performance and professional development of senior management. As of the end of the Reporting Period, the board committees of the Company include the Audit Committee, Remuneration Committee, Nomination Committee and Investment and Risk Management Committee. The corporate governance team is committed to upholding CGN New Energy's interests and making fair and clear decisions on major operational issues of the Group, so as to promote the Group's evergreen development and create value for our key stakeholders.

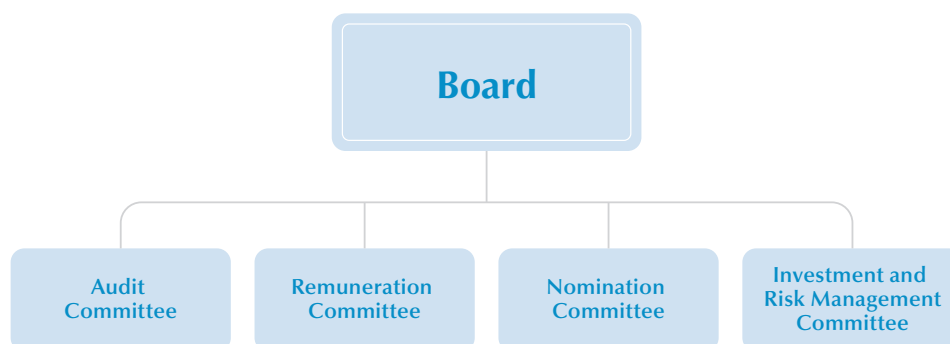
The corporate governance structure of CGN New Energy:





## 09 Corporate Governance

The governance structure of CGN New Energy:



The Report basically presents the corporate governance system and work of CGN New Energy in 2019. For details, please refer to the "Corporate Governance Report" contained in our Annual Report 2019.

### ECONOMIC RESPONSIBILITY

The Group gives full play to the advantages of the "headquarters financing" mode to build a diversified financing platform on the basis of traditional bank financing by continuously considering market policy changes and facilitating the expansion of the Group's asset portfolio. Through constantly exploring a variety of capital market financing tools, the Group constantly optimises the Group's capital structure and debt structure, in order to lay a solid foundation for the sustainable development of the Group.

During the Reporting Period, the 2018 dividend distribution plan of the Company, based on 4,290,824,000 shares (the number of issued shares on the date of the Annual General Meeting), was passed at the annual general meeting of the Company held on 30 May 2019 ("**Annual General Meeting**"). The final dividend of 0.51 US cents per share (equivalent to 4.01 HK cents per share) was distributed to all shareholders. The dividend distribution plan was completed on 21 June 2019, with a final dividend distributed totaling US\$22.1 million (equivalent to HK\$172.0 million).

## 09 Corporate Governance

### ANTI-CORRUPTION

CGN New Energy strictly complies with the relevant laws and regulations relating to bribery, extortion, fraud and money laundering in the operating regions, including Mainland China, Hong Kong and Korea. The names of relevant laws and regulations that we have complied with during the Reporting Period, as well as an overview of the Group's compliance with the laws and regulations, are listed in "Appendix I" of the Report. The Group formulates and strictly implements various internal management policies on prevention of bribery, extortion, fraud and money laundering in the course of operation.

We take "fair and clean under the sunshine" as the integrity principle, incorporate the culture of high integrity in the corporate governance structure and pursue better corporate governance through compliance with the law. We also integrate the corporate culture into the individual development of our employees. To ensure clear consensus between the management and the employees, our Employee Handbook and Code of Conduct for Staff specify the codes of conduct and requirements by which all employees must abide. We require all business units to closely follow the anti-corruption principle, hence we have formulated the Requirements of Business Integrity for Officers, the Provisional Administrative Measures for Gifts Accepting and Offering and the Provisional Measures of Conversation and Letter Enquiry on Business Integrity to set up standards of employee behavior and raise awareness of honest business practices.

In the meantime, the Group developed the Whistleblowing Policy based on the Listing Rules, which encouraged employees to raise concern in confidence for any misconduct, malpractice and corruption relating to our business. This has established correct values, fostered a culture of honest business practices, and improved corporate governance effectiveness.

### Providing Confidential Ways for Whistleblowing

CGN New Energy has established a special whistleblowing system and ensured the independence and confidentiality of the complaint reporting process to ensure the channel for employees' complaints and whistleblowing is safe and unblocked. The system allows employees to submit internal complaints or opinions about the Group. We have in accordance with the Constitution of the Communist Party of China, the Measures of Reporting Work of Supervision Authorities, the Administrative Measures of Discipline Inspection and Supervision of the Group, and the Rules of Discipline Inspection, Supervision and Reporting Procedures of the Group, formulated the Administrative Measures on Discipline Inspection, Supervision and Reporting Procedures and the Reward Measures for Real-name Whistleblowing, in order to encourage employees to report any irregularities, uphold integrity in the Group, and create a clean working culture. The employees can submit complaints anonymously and the whistleblowing system will keep confidential the reported information. The employees can also report to the Audit Committee by post or through email. The Audit Committee will try its best to keep strictly confidential on the identity of the employee who submitted the report to the maximum extent permitted by law.

### Policy for Prohibiting Illegal Retaliation and Discrimination

CGN New Energy has also formulated protection policies in accordance with relevant laws to protect employees who conduct whistleblowing and ensure that whistleblowers will not be subject to unlawful retaliation or discrimination due to their lawful reporting or participation in investigations. If an employee believes that he/she has been subjected to any of the aforesaid unlawful retaliation or discrimination, he/she may file a complaint through the aforesaid reporting procedure, and the Group will deal with the issue seriously or even immediately dismiss any person who retaliates or discriminates against him/her.

## 09 Corporate Governance

### RISK PREVENTION

#### Internal Management and Control

CGN New Energy has accumulated rich management experience through years of operation practice in the field of new energy projects. While maintaining stable production and operation, CGN New Energy can timely adjust the Group's operation and development plans according to the changes in the industry and market. During the Reporting Period, the Company and its subsidiaries actively improved the internal control management model, vigorously promoted the internal electronic and information construction, and improved the operation and management efficiency.

#### Financial Supervision

During the Reporting Period, we strengthened the financial inspection of each regional project company, focusing on the internal control management, financial accounting audit, capital and asset file management of each project company. Regional project companies actively accepted regular financial inspection and financial internal control and other special supervisions. During the Reporting Period, the Group's financial supervision work was conducted smoothly, and no financial problems were found that had a significant adverse impact on the Group's operation.

#### Information Security Management

In order to ensure the information system security of the Group's operation process, we deploy security measures such as intrusion monitoring system and firewall to ensure the network security of internal data. In addition, the Group also regulates the online behaviour of employees through improving the internal Internet behaviour management system, so as to prevent employees from accessing websites with irregularities or potential safety hazards. The Group regularly installs or updates the internal system antivirus software and carries out virus scanning on the network access port filter to maintain the Group's internal computer safety.

# 10 Green Operation

As a firm advocate and practitioner in the field of new energy, CGN New Energy provides the society with safe, reliable, low-carbon and affordable electricity, and strives for a bluer sky and cleaner water. CGN New Energy continuously carries out environmental protection management from multiple aspects, actively complies with the national policy of “comprehensively strengthen ecological and environmental protection and promote the tough fight for prevention and control of pollution”, and strives to reduce the environmental impact of the Group in the process of business development and establish a green operation model. We hope that we can, through our green energy business characteristic and continuous improvement of the environmental management system, promote the green and sustainable development.

## GREEN MANAGEMENT SYSTEM

CGN New Energy has established a complete environmental management system to support and standardise the Group’s environmental management under the operation principle of “to use resources wisely and maintain a continuing development”. The Group has an environmental protection leading group, which comprehensively leads the Group’s environmental protection work. The significant impact caused by the Group to the environment and natural resources in its business activities mainly includes the removal of vegetation during the construction of new power generation projects, as well as fuel consumption and exhaust gas emissions during the operation of some conventional energy projects. The Group formulates and strictly implements various internal management policies on atmospheric emissions, wastewater, wastes, and the mitigation of the adverse impact of the operation on the ecological environment.

Main duties of the environmental protection leading group includes:

- Holding working meetings on a regular basis and responsible for approval of major environmental projects of the Group
- Providing solutions to significant environmental issues arising from daily operation of projects
- Making decisions on short-term goals and long-term planning for environmental protection of the Group

Besides, we have set up a Safety, Quality and Environment Department in all regional branches and independent project companies to supervise and manage the environmental protection works of each project. We also assigned EHS management personnel for the management and maintenance of environmental protection facilities. Other departments of the project companies will perform their own duties under the guidance of Safety and Quality Department, so as to ensure smooth implementation of various green policies in the Group. Close cooperation among all departments effectively actualises the sustainability in our course of operation.

At present, all the power generation projects we have put into operation have obtained ISO 14001 Environmental Management System Certification. The Group requires all newly acquired or completed power generation projects to obtain the above management system certification qualification within two years after the acquisition or completion to strengthen the environmental compliance of the project operation.



## 10 Green Operation

### CASE SHARING: MODEL OF ENVIRONMENTAL PROTECTION AND GREEN OPERATION – NINGHAI YISHI WIND POWER PROJECT IN ZHEJIANG

Ninghai Yishi Wind Power Project of CGN New Energy is located in the mountains to the north of Yishi Town, Ninghai County, Ningbo City, Zhejiang Province, China, with an average altitude of 300 to 500 meters and the annual utilisation hours of more than 2,100 hours. From the official construction to production, the Ninghai Yishi Wind Power Project was completed in only seven months, making it one of the “fastest wind power projects put into operation” in Zhejiang Province. Such speed is commendable even for a wind power project developed in a plain, let alone the project is located in mountains with complex terrain conditions. The construction of the project was praised as “Speed of CGN” by the acceptance department, and the Ninghai Yishi Wind Power Project in Zhejiang was selected into the national “Grand Achievements Exhibition on the 70th Anniversary of the Founding of the People’s Republic of China”.



The picturesque Ninghai Yishi Wind Farm

CGN New Energy not only demonstrated the “Speed of CGN”, but also brought about the picturesque scenery of “Ecology of CGN”. By adhering to the concept of “environmental protection first”, the project has generated multiple comprehensive social benefits. During the construction period of the wind farm, a road hardening and regreen project will be conducted according to the characteristics of the soil simultaneously. All sections of the road will be hardened with cement and guardrails will be added in dangerous sections to enable the safe travel of local residents. In addition to the construction of road infrastructure, CGN New Energy has invested a huge sum of money to strengthen soil and water conservation and vegetation restoration and has actively adopted flower seeds spreading and other methods for vegetation restoration. For soil and water erosion of rock slope, the Group used the shotcrete method to repair bare slope and built drains along the road in order to prevent the slope and road from being affected by rainwater. With practical actions to fulfil the oath of “environmental protection priority”, the Group is determined to build the beautiful ecological wind farm with tourism value and sets a positive example for the surrounding wind farms.

# 10 Green Operation

## MONITORING AND MANAGEMENT MECHANISM FOR EMISSION AND DISCHARGE

CGN New Energy strictly complies with the relevant laws and regulations on air and greenhouse gas emissions, discharges into water and land, generation of hazardous and non-hazardous waste, and noise control in the operating regions, including Mainland China, Hong Kong and Korea. The names of relevant laws and regulations that we have complied with during the Reporting Period, as well as an overview of the Company's compliance with the laws and regulations, are listed in "Appendix I" of the Report.

### Atmospheric Emissions

The main atmospheric pollutants produced by the Group, including smoke and dust, sulfur oxides and nitrogen oxides, are mainly from fuel combustion during the operation of coal-fired, cogen, steam, gas-fired and oil-fired projects. In order to mitigate the impact of atmospheric pollutants from fuel combustion on the environment, the relevant projects of the Group have set up and run exhaust gas treatment devices. In addition, we monitor our exhaust gas emissions effectively through a comprehensive emissions monitoring system and daily management mechanism to ensure that all project companies comply with local laws and regulations on atmospheric pollutants. Through the formulation of strict management system, including the Regulations of Desulfurisation, Denitrification, and Dust Removal Operations, the Management System relating to the Start and Stop of Desulfurisation Facilities, the Dust and Ash Removal Evaluation and Statistics Provisions and other documents, for the operation and maintenance of exhaust gas treatment facilities, as well as setting out the relevant personnel operating rules, we ensure the emissions meet the standards with our efforts in internal governance.

We actively enhanced the proportion of investment in clean and renewable energy projects (i.e., wind, solar, gas-fired, hydro and fuel cell projects) during the Reporting Period, and continued to expand the proportion of clean and renewable energy projects in the Group's attributable installed capacity.

We check and maintain the exhaust gas emission system regularly to ensure the normal operation of the emission system. In case of failure of the exhaust gas treatment system, we will immediately suspend the system for maintenance and apply for suspension with the environmental protection department to minimise the impact on the environment.

Our operation in Mainland China has been strictly in compliance with the Emission Standard of Air Pollutants for Coal-fired Power Plants to ensure the emissions of smoke and dust, sulfur oxides and nitrogen oxides are below the concentration level of 20 mg/m<sup>3</sup>, 50 mg/m<sup>3</sup>, 100 mg/m<sup>3</sup> respectively. We achieve ultra-low emission and reduce emission from electricity generation continuously by measures such as improving technology and upgrading equipment.

## 10 Green Operation

Daily management of atmospheric pollutants:

- Install boilers that comply with environmental requirements and implement the “Three Simultaneous” green system to meet the emission standards for boilers
- The production departments of project companies carry out regular inspection and maintenance on the exhaust gas emission system, exhaust gas treatment facilities and CEMS online monitoring system to ensure all these systems are in normal operation and record the inspection results

Treatment methods for atmospheric pollutants:

- Flue gas from boilers is discharged at height after treatment in the flue gas precipitator system
- Magnesium oxide desulphurisation device and limestone desulphurisation are used
- Meeting the nitrogen dioxide emission standard through low nitrogen burning and selective catalytic reduction (SCR) desulphurisation

Monitoring methods for atmospheric pollutants:

- The Safety and Quality Department entrusts a third-party monitoring institution to monitor the atmospheric emissions of each project company and keep monitoring records

During the Reporting Period, the emission volume of atmospheric pollutants of our projects:

NO <sub>x</sub>	1,389.28 tonnes, decreased by 7% as compared with 2018 (2018: 1,501.02 tonnes)
SO <sub>x</sub>	129.59 tonnes, decreased by 54% as compared with 2018 (2018: 281.50 tonnes)
Smoke and dust in exhaust gas	79.70 tonnes, decreased by 30% as compared with 2018 (2018: 113.18 tonnes)

During the Reporting Period, the amount of greenhouse gas emissions of our projects:

Total greenhouse gas emissions (Scope 1 and 2) <sup>3</sup>	17,774,698.17 tonnes CO <sub>2</sub> eq
Greenhouse gas emissions per MWh of electricity generated	1.31 tonnes CO <sub>2</sub> eq

*Greenhouse gas emissions (Scope 1) per MWh of electricity generated decreased by 2% as compared with 2018*

According to the Group's business characteristics, the Group's main greenhouse gas emissions during the Reporting Period were from fuel combustion during the operation of some projects and the use of purchased electricity. The Report focuses on the disclosure of the Group's greenhouse gas emissions of Scope 1 (direct emissions) and Scope 2 (indirect emissions caused by the use of energy) during the Reporting Period. The Group will consider disclosing greenhouse gas emissions of Scope 3 (other indirect emissions) in future reporting periods. In the future, we will further improve the production capacity structure and continue to optimise the current share of clean and renewable energy projects and conventional energy projects in power production, so as to achieve a stable decline in atmospheric pollutants and greenhouse gas emissions and contribute to the battle for ecological and environmental protection and the mitigation of global greenhouse effect.

<sup>3</sup> The data includes greenhouse gas emissions of Scope 1 (direct emissions) and Scope 2 (indirect emissions caused by the use of energy). The greenhouse gas emissions data in 2019 includes the greenhouse gas emissions of Scope 2 (indirect emissions caused by the use of energy) as compared with 2018.

# 10 Green Operation

## Produced Wastewater

CGN New Energy also manages the major wastewater produced in its operations through an established environmental management system to ensure its compliance with relevant national and regional laws and regulations. The main wastewater produced by the operation of the Group includes wastewater from chemical treatment, sewage from slag removal system and sewage and coal transport system, periodic discharge of boilers as well as domestic wastewater, etc.

We strive to meet the regulations of the places where we operate through active efforts in daily management, such as sewage management and treatment undertaken by the Production Management Department and Safety and Quality Department, along with various measures and supervision initiatives.

Daily management of wastewater:

- The Production Department and Safety and Quality Department of project companies are responsible for the wastewater management and treatment as well as record maintenance
- For project construction which involves wastewater discharge, the department-in-charge is responsible for signing the environmental protection agreement with the contractors and the Safety and Quality Department should ensure that wastewater is discharged in compliance with the standards

Treatment methods of wastewater:

- In the wastewater treatment system, wastewater undergoes sedimentation and neutralisation until it meets the standards and is discharged to wastewater treatment plants

Monitoring methods of wastewater:

- Safety and Quality Department engages third-party inspection bodies to monitor wastewater discharged by project companies and maintains inspection record

During the Reporting Period, the discharged amount of wastewater:

Wastewater	980,616.10 tonnes
Legal discharge rate	100%

## Hazardous and Non-hazardous Wastes

CGN New Energy carries out comprehensive management of major wastes produced in the operation process through the established environmental management system, so as to reduce the adverse impact of the project on the surrounding environment and people's health. The main wastes produced by the Group in the process of power production include pulverised fuel ash, slag, waste oil, waste paint, desulfurised gypsum and denitration catalyst, etc.

For the treatment of hazardous waste produced, the Group strictly complies with the Guidance on Disposal of the Waste Materials in Production, Operation and Maintenance. Based on which, the responsible department collects and stores the waste at designated warehouses. We place and store the waste at designated spots within the factory area and the keeper, who are trained for professional disposal of hazardous waste, shall register and deliver the waste to qualified third parties for further treatment before filing the five copies of the transit manifest.

We entrust professional resource recovery companies to recover the exhausts and fuel combustion by-products with reuse value such as pulverised fuel ash and desulfurised gypsum. This approach not only reduces the impact of waste on the environment but also reduces the Group's operating costs.

All business units of the Group are committed to the principle of "repair and reuse, proper storage, full utilisation, revenue generating and expenses cutting" to reduce waste production during operation. The procurement departments of project companies are responsible for collecting waste and obsolete materials while the production management departments are responsible for obsolete material recycling. Based on the principles of "economic reasonableness, quality assurance, centralised management and prioritised utilisation", the Group carries out necessary repair work on components and parts disassembled at the production sites, so as to restore their original functionality. This substantially reduces waste production and lowers operating costs.

We internally grant "Repair and Reuse" awards to individuals and business units which have outstanding performance in repairing and reusing work to raise green awareness of employees. The value of repaired and reused materials is jointly determined by the procurement department and production management department of each project company and the award is based on the original value of the materials before repair. The production management department regularly summarises the completed repair and reuse projects and makes recommendation on awards.



## 10 Green Operation

During the Reporting Period, the change in volume of hazardous waste produced in the course of operation was as follow:

Total hazardous waste produced	261,457.51 tonnes
Hazardous waste produced per MWh of electricity generated	0.019 tonnes

*Hazardous waste produced per MWh of electricity generated decreased by 7% as compared with 2018*

During the Reporting Period, the volume of non-hazardous waste was as follow:

Total non-hazardous waste produced	76,313.11 tonnes
Non-hazardous waste produced per MWh of electricity generated	0.0056 tonnes

*Non-hazardous waste produced per MWh of electricity generated decreased by 5% as compared with 2018*

During the Reporting Period, the volume of wastes recycled in the course of operation was as follow:

Pulverised fuel ash	256,836.00 tonnes, a recycled rate of 98%
Desulfurised gypsum	25,246.50 tonnes, a recycled rate of 90%

In the future, the Group will further reduce the hazardous and non-hazardous wastes produced in the operation process through technological transformation and production equipment upgrade.

## USE OF ENERGY AND RESOURCES

CGN New Energy adopts the approach of "environmental protection first in preliminary design, striking a balance between construction progress and environment protection, and incorporating environmental considerations in production". It not only rolls out a variety of initiatives on ecological and landscape protection, atmospheric environment protection and water environment protection, but also emphasises energy and resource saving in the operation. The Group formulates and strictly implements various internal management policies on the use of energy and water resources.

### Energy Utilisation

CGN New Energy adheres to the principle of efficient use of energy. During the Reporting Period, we have successfully carried out a number of key energy conservation technology modification projects and continued to promote the proportion of investment in clean and renewable energy projects. Such practices have not only improved the overall energy efficiency of the Group, reduced greenhouse gas emissions, but also reduced the Company's operating costs.

During the Reporting Period, the consumption of major energy in our projects was as follow:

Total energy consumption	24,058,855.17 MWh
Energy consumed per MWh of electricity generated	1.78 MWh

*Energy consumed per MWh of electricity generated decreased by 12% as compared with 2018*

During the Reporting Period, the Group continued to promote the development of green energy, and the construction and operation of various clean energy projects proceeded steadily. At present, the development pattern of the Group's wind power business contains the comprehensive development of offshore and onshore business and the comprehensive development of wind power generation and professional services, separately. The standardisation, serialisation, and scale of wind power construction and operation and maintenance of the Group are at the leading edge of the industry. With the increasing proportion of the Group's investment in renewable energy in the future, the energy consumption intensity of the Group is expected to decline further.

## 10 Green Operation

In the future, CGN New Energy will focus on the following aspects to better seize the opportunities for new energy development:

- Continuously strengthen the safety foundation, focus on improving the level of meticulous management in production, and further improve the safety operation level and comprehensive management efficiency of the projects;
- Pay close attention to and actively respond to the market power system reform and regional policy changes, strengthen the study of power sales strategy, and take efficiency as the starting point to coordinate and carry out various power transactions;
- In terms of project construction, with improving project construction quality management as the benchmark and controlling construction cost as the goal, constantly improve project construction process management, so as to fully promote the efficient and high-quality production of the projects;
- Keep close track of the development trend of the industry, seize the opportunities of new energy development, strengthen the reserve of high-quality resources, persist in exploring and promoting the innovation of development model, and accelerate the completion of high-quality projects.

### CASE SHARING: COMPREHENSIVE UTILISATION OF ROOFTOPS IN AVIATION ECONOMIC AREA – SHENZHEN AIRPORT PHOTOVOLTAIC POWER PROJECT

Shenzhen Airport Distributed Photovoltaic Power Project of CGN with an installed capacity of 14.4 MW, is in the logistics park of Shenzhen Airport and the Airport Cargo Terminal in Shenzhen, Guangdong Province. Since being put into operation in 2013, the project has maintained safe and stable operation. It provides a steady stream of green electricity to Shenzhen Airport to support the energy supply of the airport while greatly increasing the proportion of clean energy use in the airport. The project has a positive exemplary effect in the application and promotion of distributed photovoltaic power generation.



The power generation station on the rooftops of the logistics park of Shenzhen Airport

The project is in line with China's 13th Five-Year Plan for energy conservation and emission reduction. As China's "National Golden Sun Demonstration Project", the project is the largest rooftop distributed photovoltaic power demonstration project in the field of civil aviation in China.

## 10 Green Operation

### CASE SHARING: RATIONAL USE OF ABUNDANT WIND ENERGY RESOURCES IN INLAND MOUNTAINOUS AREAS – LINQU LONGGANG WIND POWER PROJECT IN SHANGDONG

Linqu Longgang Wind Power Project in Shandong of CGN New Energy is in Linqu County, Weifang City, Shandong Province. It is a distributed onshore wind power project invested and operated by the Group in Shandong Province. The project made comprehensive use of the rich wind energy resources in Linqu County and rational use of wind energy to provide power for the surrounding region and even other parts of Shandong Province. The project not only enhances energy efficiency, but also generates objective economic benefits for the region where the project is located, and thus drives the collaborative development of the region.



Linqu Longgang Wind Power Project in Shandong

The wind power project has an installed capacity of 48 MW, which not only promotes the economic development of the surrounding region but also contributes to the environment protection of the area where the project is located. The project's annual sales of environmentally friendly electricity are equivalent to a reduction of using 25,041 tonnes of standard coal, a reduction of 250,000 tonnes of carbon dioxide emissions and a reduction of generating over 6,000 tonnes of fly ash. At present, Linqu Longgang wind power project in Shandong has become a beautiful scenery of Linqu County's new energy industry.

# 10 Green Operation

## Water Resource Management

Enhancement of water use efficiency is a matter of concern of CGN New Energy in its day-to-day operation. The consumption of water resources in the daily operation of the Group mainly comes from boiler water of thermal power plants, equipment cooling, equipment cleaning, daily life water for on-site employees, office activities, and firefighting activities, etc. The Group attaches great importance to the optimal use of water resources and reduces the consumption of water resources by using circulating water and rainwater instead of freshwater in the project, using water-saving appliances and inspecting and maintaining the water supply system to avoid water leakage. The Group actively prevents the waste of water resources through various water-saving measures. Each project company strictly monitors water meters and other facilities in the production area to prevent water leakage. At the same time, we advocate the rational use of recycled water and rainwater and other water-saving measures.

To improve the power generation efficiency of photovoltaic projects, solar photovoltaic panel components must be cleaned regularly. By using rainwater for washing and using intelligent robots for non-hydrating cleaning, we have achieved the cleaning standard for components while reducing the consumption of additional water resources.

During the Reporting Period, the consumption of water resources in our projects was as follow:

Total water used	7,327,731,390.66 m <sup>3</sup>
Surface water (water of rivers, lakes, and seas) used	7,326,226,671.30 m <sup>3</sup>
Municipal water (tap water) used	1,491,295.36 m <sup>3</sup>
Ground water (water of wells and springs) used	13,424.00 m <sup>3</sup>
The water discharged back to the rivers, lakes, seas and land after self-pretreatment and reaching standards	7,320,006,027.30 m <sup>3</sup>
Total water consumed <sup>4</sup>	7,725,363.36 m <sup>3</sup>
Water consumed per MWh of electricity generated	0.571 m <sup>3</sup>
The circulating water used	5,782,123.00 m <sup>3</sup>

*Water consumed per MWh of electricity generated decreased by 14% as compared with 2018*

During the daily operation of the Group, the largest amount of water is used in boilers of thermal power plants, and the water source is mainly surface water. Most of the water used by thermal power plants will be discharged to the adjacent rivers, lakes, seas, and other natural environments after self-pretreatment to reach discharge standards. The legal discharge rate of wastewater was 100% in 2019. In order to reduce the actual water consumption, the Group's thermal power and steam projects actively strengthen the management on the use of water resources. Relevant management methods include introducing new boiler combustion technology, modifying existing boiler equipment, rationally using circulating water in the projects, and improving the capability of boiler wastewater pretreatment. With the improvement in the Group's management of the use of water resources year by year and the Group's increasing proportion of attributable installed capacity of renewable energy projects, the water consumption in the Group's daily operation is expected to decline steadily in the future.

In addition, since 2013 and 2014, when the eastern and middle routes of the South-North Water Transfer Project officially started operating, respectively, the water scarcity situation in part of north and east China has been alleviated. During the Reporting Period, as most of the water intensive projects<sup>5</sup> in the operation of the Group were mostly located at the areas near rivers, lakes and seas, such as Henan Province, Jiangsu Province, Shanghai City and Hubei Province of China and Jeollanam-do and Chungcheongnam-do of Korea, the Group did not face any issues in sourcing water that is fit for purpose during the Reporting Period.

<sup>4</sup> The data excludes the water discharged back to the rivers, lakes, seas and land after self-pretreatment and reaching standards and the circulating water used.

<sup>5</sup> Including coal-fired, cogen, steam, gas-fired, and oil-fired projects in China and Korea.



# 11 Caring for Employees

CGN New Energy's continuous success depends on recruiting and retaining talents for its sustainable growth. We are concerned about the improvement of employee's professional skills and their physical and mental health at work and are committed to maintaining a good working environment which values integrity, diverse development, cooperation, and communication.

## STANDARDISED EMPLOYMENT

CGN New Energy strictly complies with the relevant laws and regulations on compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfares, as well as laws and regulations related to prevention of child labor and forced labor in the operating regions, including Mainland China, Hong Kong and Korea. The name of relevant laws and regulations that we have complied with during the Reporting Period, as well as an overview of the Group's compliance with the laws and regulations are listed in "Appendix I" of the Report. The Group has formulated and strictly abided by the internal management policies on compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfares, and those related to the prevention of child and forced labor.

CGN New Energy implements the internal Recruitment Management Process and arranges standardised interview and assessment for employees during recruitment in accordance with the management system to determine employment based on merits. The Group pledges to treat job applicants and employees of different gender, colour, nationality, ethnicity, cultural background, religious belief, family background and sexual orientation fairly and openly when arranging recruitment, hiring, training, rewards, promotion and development, and strictly prohibits any forms of differential treatment and discrimination. As of the end of the Reporting Period, the total number of employees of the Group was 1,783, with 117 of them are of ethnic minorities (6.56% of total employees)<sup>6</sup>.

When recruiting new employees, the Group will check the applicant's identity card, academic certificates, and other documents. Individuals under the age of 16, and those who are not allowed to be hired according to laws and regulations, as well as those who do not meet the conditions of employment after the medical examination by recognised hospitals will not be hired. The Group strictly prohibits any use of child and forced labour.

During the probation period, an employee may propose to terminate the labour contract, but a written report should be filed at least three days in advance. The Group may unilaterally terminate the labour contract if any employee is found with non-satisfaction with the employment conditions, contravention of laws and regulations, non-compliance with the Group's rules and regulations and violation of labour discipline during the probation period.

In addition, we conduct annual performance appraisals and assessments for all employees and arrange salary adjustments and promotions according to the ability, performance, and other factors of each employee. The Group will demote or transfer the employee with poor appraisal results continuously. If such employee's further assessment is still not up to standard, the Group will negotiate with the employee to terminate the labour contract and pay reasonable severance according to the laws.

CGN New Energy will provide all long-term employees with:

- Reasonable salary and considerate benefits
- Detailed job responsibilities in line with the position
- Working hours which meet the requirements of national and local laws and regulations
- Annual leave, personal leave, sick leave, marriage leave, maternity leave, etc.
- Regular performance appraisal and assessment, and comprehensive arrangement for salary adjustment and promotion
- Timely payment for Insurances and Housing Fund, Mandatory Provident Fund (MPF) and National Pension in accordance with relevant laws and regulations of Mainland China, Hong Kong and Korea respectively

In terms of expanding recruitment channels, we have developed diversified talent recruitment approaches to attract outstanding talents, such as online recruitment, employee referrals, talent exchange session and on-campus promotion. CGN New Energy hopes to retain the best available personnel including the management while attracting potential talents through continuous improvement of its human resources management system, as to secure the Group's sustainable development in terms of human resources.

<sup>6</sup> With reference to the Summary of the *Sixth National Population Census in 2010* by the National Bureau of Statistics of China, ethnic minorities accounted for 8.49% of the total population in China, while according to the *2018 Population and Housing Census* by the National Bureau of Statistics of Korea, there were no ethnic minorities in Korea as Korea is a single ethnic nation.

# 11 Caring for Employees

As of the end of the Reporting Period, the Group's employee composition by geographical region is as follow:

Country and region	Mainland China	Hong Kong	Korea	Other countries and regions
Number of employees	1,545	44	194	0
Percentage ratio	86.6%	2.5%	10.9%	0%

As of the end of the Reporting Period, the Group's employee composition by age is as follow:

Age group	Under 30	Between 30 and 50	Above 50
Number of employees	433	1,157	193
Percentage ratio	24.3%	64.9%	10.8%

As of the end of the Reporting Period, the Group's employee composition by employment type is as follow:

Employment type	Full-time	Part-time
Number of employees	1,783	0
Percentage ratio	100%	0%

As of the end of the Reporting Period, the Group's employee composition by gender is as follow:

Gender	Male	Female
Number of employees	1,480	303
Percentage ratio	83.0%	17.0%

During the Reporting Period, the Group's cost of employee welfare is as follow:

Staff cost	Amount (US\$'000)
Salaries and allowances	65,097
Retirement benefits scheme contribution, including directors' emoluments	11,427

# 11 Caring for Employees

## OCCUPATIONAL HEALTH AND SAFETY

### Operational Risk Management

CGN New Energy strictly abides by the laws and regulations relevant to providing a safe workplace and protecting employees from occupational hazards in its operating regions, including Mainland China, Hong Kong and Korea. The name of relevant laws and regulations that we have complied with during the Reporting Period, as well as an overview of the Group's compliance with the laws and regulations are listed in "Appendix I" of the Report. The Group has formulated and strictly implemented various internal management policies on preventing employees from occupational injuries.

As the largest business segment of CGN New Energy, electricity generation and sales contribute substantially all of the Group's revenue. The Group adopts various approaches in generating electricity, including solar power, wind power, gas-fired power, etc., which involve a wide variety of processes and techniques on equipment operation. The performance assessment for the operational safety of each project has always been the top priority of the Group's inspection and acceptance-related work. In order to reduce the risks relating to the technical requirements of our business and sudden accidents, we always adhere to the basic operating principle of "safety first" and ensure the safety of our employees through the implementation of various occupational health and safety policies. During the Reporting Period, we had no record of any work-related fatalities and achieved the goal of safe production.

To reinforce the effectiveness of the Group's occupational health and safety management, we have set up a "Safety and Quality Control Department", which is responsible for coordinating and monitoring all matters relating to occupational safety and health of CGN New Energy. Besides, we have also developed a series of occupational safety and health management systems, including the Procedures for Identification of Hazards Sources, Risk Assessment and Control System, the Potential Safety Risks Investigations and Treatment System, the Dangerous Items Management System and the Occupational Health and Safety Management System, etc., for employees to identify workplace safety risks and potential dangers, and to provide clear guidance to ensure that each production process can be conducted in a safe working condition.

During the Reporting Period, the occupational health and safety management status at each project region is as follow:

Project region	OHS management system establishment	OHS system certification	Number of work-related fatalities during the Reporting Period
China	Established	OHSAS 18001 certificated	0
Korea	Established	OHSAS 18001 certificated KOSHA 18001 certificated	0

We always adhere to the occupational health and safety management policy of "prevention is better than cure". CGN New Energy firmly implements an accountability system under which the responsibility of a project falls upon whoever takes primary charge of the project. Each project company of the Group sets up a leading group focusing on managing safety-related risks according to the Risk Management Measures of Comprehensive Energy Safety formulated by the Group, which coordinates all employees from general manager to general employees to conduct safety production. The Group rewards groups and individuals who make outstanding contributions to production safety and employees' occupational health and safety, imposes penalties on those who violate the production safety system and operational regulations and refers those who violate laws and regulations to the judicial authorities.

# 11 Caring for Employees

The Group requires all project companies and departments to identify all production and management hazards in order to develop corresponding safety risk management measures, and to implement them before official construction. The effectiveness of the measures, such as the integrity of the working equipment and the compliance of the scaffolds used for work-at-height, is constantly monitored through regular safety inspection activities. In addition, the Group also equips relevant employees with personal protective equipment according to the national power industry-related standards. Safety tools (such as safety helmets, safety gloves, aerial work safety belts and protective work shoes) are distributed according to employees' working positions to prevent employees from falling, being electrocuted, being injured by falling objects or being injured by other toxic substances. Safety officers from all departments supervise employees to use the relevant tools properly and provide employees with sufficient equipment to reduce their exposure to workplace safety risks.

In addition, in order to further consolidate the results of the occupational health and safety management and ensure that there is no work-related casualty, CGN New Energy also develops and implements certain internal policies such as the Life Red Lines of Production, Operation, and Maintenance, the Management Red Lines of Production, Operation, and Maintenance, the STAR Self-check Card, and the Safety Management System on Sites, etc. for all employees to study.

The STAR Self-check Card is the tool to prevent human-induced failures before conducting major operation activities:

<b>Stop</b>	Pause or stop for a while before work, focusing on the upcoming task
<b>Think</b>	Think about the task-related risks, such as whether the Life Red Lines of Production, Operation, and Maintenance have been implemented, and make a plan
<b>Act</b>	Start working according to the plan
<b>Review</b>	Check and review whether there are omissions upon completion of the task



# 11 Caring for Employees

## Health and Safety Training

CGN New Energy not only continuously improves the risk management system but also organises and provides a variety of occupational health and safety trainings for its employees. Through relevant training, the employees can be more familiar with the standard working procedures and be able to respond to unexpected work accidents in a timely and proper manner. All our new production personnel must pass the 3-level (i.e. branch company, project company and position) safety education, and undergo a safety education test. All new production personnel must pass the test before working at the production and construction sites. Moreover, we also arrange occupational health and safety training activities for in-service personnel, including targeted site assessment, accident-avoiding study, skill-specific quizzes, accident anticipation and other on-site training and safety activities. Other related employees are also required to complete a safe production knowledge test, to ensure their safety awareness level is able to meet the requirements of the Group.

In terms of improving the ability of employees to cope with emergencies, the Group organises training on fire safety knowledge for employees every year. We require all employees participating in the training to be equipped with “four understanding and four abilities”, including understanding the danger of fire and being able to call the firefighters; understanding fire prevention measures and being able to use fire-fighting equipment; understanding firefighting methods and being able to deal with accidents; understanding the ways to escape and being able to escape. At the same time, the Group’s Safety and Quality Department regularly provides employees with training courses related to safe production laws and regulations and safety management policies and systems, so that employees can fully master the knowledge of safe production. We set up a production safety month every year, and each project company holds various safe-production-related activities, including lectures, safety drills and so on, to improve the safety awareness of all employees.

During the Reporting Period, various OHS training activities were organised by our project companies:

Daily maintenance work	Three-tier safety education program for new employees	Responding to emergencies	On-site first aid training
	Occupational hazard and occupational health training		Fire safety training
	Training on road safety		Turbine technology and accident handling
	Safety training for external contractors		Training on the emergency response plan for production employees
	Safety training for external construction contractors and workers		
	Safety management training for managers		
	Continuous training for safety engineers		

# 11 Caring for Employees

## MUTUAL GROWTH AND PROGRESS

Providing comprehensive occupational training for employees is vital for achieving mutual benefits for both employees and the enterprise. CGN New Energy attaches great importance to improving the professional skills of employees and adheres to its strategy of "building a strong enterprise with talents". Upholding its talent concept of "make the best of one's talent and create a future together", the Group combines CGN's talent training management system and the business characteristics of CGN New Energy, and regularly provides free and diversified professional skills training and clear career path for employees based on the skills requirements of each position at different energy power generation projects. The Group has formulated and strictly implemented various internal management policies to improve the professional skills of its employees.

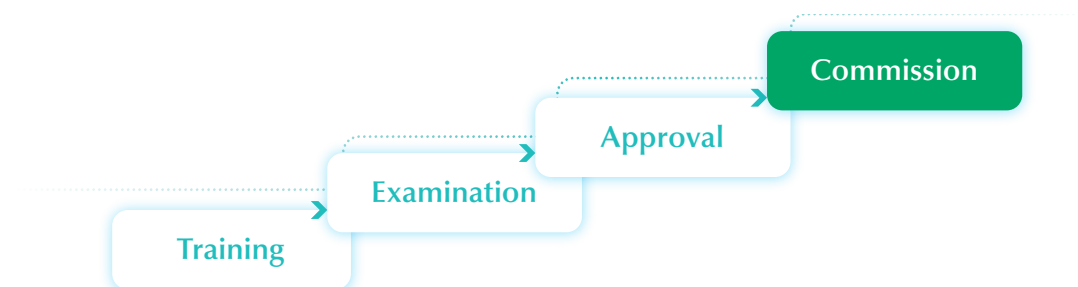
Relevant skills training aims at improving the daily work skills of relevant employees. The Group hopes that such training can improve the work efficiency of employees and enhance their professional skills, so that employees can create value for CGN New Energy as well as having opportunities to improve their professional competitiveness. Besides, we also actively provide a full range of vocational skills upgrading opportunities for other employees to enable every employee to make use of their talents, expand their vocational skills and achieve their self-development through diversified training courses.

Nurturing management talents:



# 11 Caring for Employees

Nurturing technical talents:



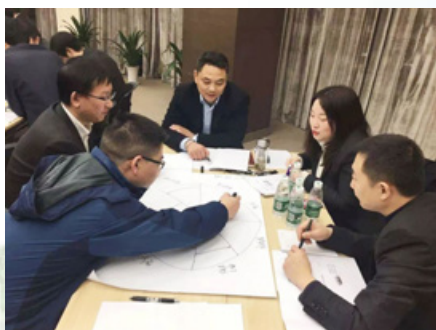
The project companies shall implement the Group's plan for the training of professional and technician personnel and the training of operation, maintenance and repair skilled personnel, and form a training system for clean energy talents, including the construction of training organisation and management system, training authorisation system and training support system, so as to help employees master professional skills in an all-around way.

## CASE SHARING: CGN NEW ENERGY 2019 EGRET TRAINING PROGRAM

On 5 March 2019, phase 1 of the 2019 Egret Training Program of CGN New Energy Hubei branch office was launched in the multi-purpose room on the second floor of the branch office, with more than 30 middle-level and junior managers attending the training. The training invited external professional lecturers to initiate group discussion with the topic of "formulating solutions and improving presentation skills". Starting with communication and collaboration across departments, the tool for wheel-balancing was introduced in the training. The lecturer also guided the discussion and interaction between trainees on practical cases through watching videos. Trainees actively participated and spoke enthusiastically in the discussion session.



Employees paid serious attention when attending new joiners training



Group discussion session

## 12 Quality Assurance

Adhering to the concept of win-win cooperation, CGN New Energy has established a wide range of cooperative partnerships with many enterprises and scientific research institutions specialising in non-nuclear clean energy and paid ongoing attention to the development of the industry. The Group works together with various business partners to jointly overcome challenges, continuously promote the win-win development of new energy industry and make contributions to social progress. In addition, we are committed to selecting business partners who reflect our values and our commitment to sustainability.

CGN New Energy strictly abides by the laws and regulations related to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress in its operating regions, including Mainland China, Hong Kong and Korea. The name of relevant laws and regulations that we have complied with during the Reporting Period, as well as an overview of the Group's compliance with the laws and regulations are listed in "Appendix I" of the Report. The Group has formulated and strictly implemented various internal management policies on the safety of electricity and steam supply, protection of customer privacy and environmental and social risks in the supply chain.

### SUPPLY CHAIN MANAGEMENT

As an essential part of quality assurance during the Group's operation, suppliers play an important role in supporting our business development. CGN New Energy takes "safety first, quality foremost, pursuing excellence" as the basic principles of corporate operation and development. The Group takes "precise enacting, orderly execution and efficient monitoring" as the systematic idea. We are committed to maintaining a good collaborative relationship with our suppliers, and have formulated and implemented relevant systems based on the policy of "mutual benefit, common development, environmental protection, benefit the people" to standardise the performance of both parties and achieve the goal of harmonious development with mutual benefits and win-win outcomes.

During the Reporting Period, we worked with 1,330 suppliers from Mainland China, Hong Kong and Korea, mainly covering three types of suppliers including fuel, engineering projects and general equipment services. In order to standardise the procurement process, we have developed stringent management measures for the assessment of suppliers' performance. A comprehensive supplier performance assessment is carried out regularly, which covers at least seven dimensions including technology, quality, cost, delivery, responsive service, environmental protection and social responsibility. For suppliers whose contracts are being enforced, performance assessments are arranged annually by each major subsidiary. The assessment results will be used as the basis for supplier qualification confirmation and the subsequent procurement review. Priority is given to suppliers with outstanding performance. On the contrary, we will consider terminating cooperation with suppliers with poor performance.

During the Reporting Period, the distribution of suppliers:

Country and region	Mainland China	Hong Kong	Korea	Other countries and regions
Quantity	1,093	–	237	–
Percentage ratio	82.2%	–	17.8%	–

In order to improve the environmental awareness of our suppliers, we have signed the Supplier (Outsourcing Project) Environmental and Safety Control Agreement with each supplier to monitor their ESG performance, reduce pollution and avoid safety accidents in the production process. The aforesaid agreement has stipulated the Group's requirement regarding environmental protection and OHS. If any supplier has caused serious pollution incidents, we will handle the incident in accordance with relevant national regulations and terminate the contract accordingly. In the process of construction, we will standardise the production and operation behavior of employees of each construction unit in accordance with the Measures for Production Safety Management and Appraisal of External Parties and clarify the assessment rules and the handling procedures for all kinds of production safety violations and misconducts.



## 12 Quality Assurance

Approaches adopted by CGN New Energy to review the qualifications of suppliers:

Document Review	On-site Review	Other Review
<ul style="list-style-type: none"> <li>Send documents on qualification review to suppliers, and identify their tendering qualifications and ability in fulfilling the contract according to the documents returned by suppliers. The major assessment criteria include suppliers' basic qualifications, relevant performance, safety, quality and environmental conditions, technical skills and financial status.</li> </ul>	<ul style="list-style-type: none"> <li>For suppliers that require an on-site review, after passing the document review, a review will be carried out on the suppliers' safety quality, environment, technology and business at their operating location as necessary. Corresponding review strategies will be adopted based on the category of products to be supplied by the suppliers and independent written comments will be issued accordingly.</li> </ul>	<ul style="list-style-type: none"> <li>Due to the difference in business nature, each subsidiary may refer to the by-laws and carry out the review in a special way by, for example, entrusting external organizations to carry out the review, simplifying the review process or waiving the review.</li> </ul>

Suppliers are classified as "potential suppliers", "qualified suppliers" and "blacklisted suppliers" for management. "Potential suppliers" refer to those members on the CGN e-Commerce Platform (ECP) who have not passed the qualification review or whose qualification review has expired, while "qualified suppliers" refer to the suppliers who have passed the qualification review or re-assessment in the corresponding product category. "Blacklisted suppliers" refer to the suppliers who are involved in improper bidding, bribery, major contract violation, major responsibility incident, major negative public perception, and other malpractices. If a supplier was blacklisted, we would prohibit or restrict business dealings between the supplier and our subsidiaries.

The qualification review status of suppliers is marked on the ECP system based on the aforesaid principles. Contracts and orders should only be signed with qualified suppliers that have passed the qualification review. At the same time, we further subdivide the qualified suppliers into three categories, and the projects, goods and services purchased from suppliers shall not be beyond the respective grade and category specified in their qualification review which they have passed.

In addition, we also specially provide safety training and guidance for some of the suppliers to reduce potential risks in their operation process, so as to guarantee the long-term stable operation of the Group. We continuously carry out supplier training and encourage our partners to seize new opportunities and face new challenges together with the Company to achieve continuous improvement in nuclear safety. Through actively promoting the sharing of experiences and resources, the Group works with suppliers to drive sustainable development of the electricity supply chain.

## 12 Quality Assurance

### CASE SHARING: CGN NEW ENERGY 2019 SUPPLIER CONFERENCE WAS SUCCESSFULLY HELD

CGN New Energy 2019 Supplier Conference was held in Beijing on 9 May 2019. The theme of the conference was "Quality Sustainable Development", and representatives of suppliers were presented with CGN New Energy's 13th Five-Year strategic plan and targets, and the development goals in 2019. The Company's management standard, issues encountered during collaboration and requirements on management and control of suppliers, were also presented to suppliers from a wide variety of aspects including corporate culture, safety and quality, production and operation, engineering construction, commercial contracts, market development, investment, merger and acquisition, and the monitoring of discipline. Major suppliers from different industries such as wind energy and photovoltaic energy were invited to the conference. Nearly 300 representatives of suppliers and relevant departments of CGN New Energy attended the conference. Also, CGN New Energy announced the selection results of the 2018 Star Suppliers of CGN New Energy at the conference and awarded trophies to 13 5-star suppliers and 29 4-star suppliers.



Mr. Li Yilun, the President of the Company, took pictures with the award-winning suppliers

### INTELLECTUAL PROPERTY RIGHTS AND PRIVACY PROTECTION

We attach great importance to the protection and management of intellectual property rights. All employees of CGN New Energy are responsible for protecting the Group's intellectual property rights, abiding by all relevant laws and regulations and respecting the intellectual property rights of other institutions and individuals. The Group strictly implements the internal Employee Handbook and the Code of Conduct for Staff for effective implementation of each of the intellectual property rights management measures.

In addition, we strictly manage clients' information and encrypt the business data. The client's information shall be under the special management of specific personnel. Except for special cases subject to the approval of the Group, employees in irrelevant positions shall not solicit clients' information. During the Reporting Period, there was no breach of client privacy or loss of clients' data or any substantiated complaint.

## 13 Contribution to Society

As a socially responsible corporate citizen, CGN New Energy is committed to creating shared benefits for the communities which are related to our business operation. In addition to our corporate charity work, we also strengthen our links with the local communities and proactively understand the needs for social development to construct a harmonious society.

At present, CGN New Energy's community investment focuses on poverty alleviation by industrial development, supporting education development, science education and emergency relief. We hope to help the people in surrounding areas and other people in need to improve their living conditions through our own operation in project sites and welfare donation. At the same time, we also bring hope to the next generations of the local communities and drive the sustainable development in the communities in the future. The Group has formulated and strictly implemented various internal management policies on community communication related to its operation.

### POVERTY-ALLEVIATION BY INDUSTRIAL DEVELOPMENT

As China's economy continues to grow, CGN New Energy hopes that people can share the fruits of development. The country actively promotes poverty alleviation work. We also act in concert with the national policy to understand that the development of some townships and counties still lag behind and they need more resources to maintain their livelihoods. We hope that people will have enough food and their lives will be gradually improved. In the face of sudden disasters, we also timely provide aid through sending materials to relieve the pressure of people when facing the disasters.

CGN New Energy actively fulfils its social responsibility as a state-owned enterprise to effectively alleviate poverty while rapidly developing high quality-new energy business. CGN New Energy upholds its distinctive poverty alleviation principles of "alleviate real poverty by doing actual poverty alleviation work, take real responsibilities by actually taking responsibilities" and contributes its greatest effort to win the battle against poverty. Holding its concept of "build a project to benefit people", CGN New Energy has created a caring map within the country for its work in precise poverty alleviation. Throughout the years, CGN New Energy has undertaken the national mission of precise poverty alleviation, and made contribution in terms of personnel support and donations on poverty alleviation.

### CASE SHARING: ALLEVIATE POVERTY BY COMMENCING PHOTOVOLTAIC PROJECTS TO ASSIST THE EMPLOYMENT IN HORQIN LEFT MIDDLE BANNER, INNER MONGOLIA

CGN New Energy has built a photovoltaic poverty alleviation project in Horqin Left Middle Banner, Inner Mongolia. Being one of the largest photovoltaic power generation station at the Horqin Left Middle Banner, the photovoltaic power generation project for poverty alleviation with a capacity of 23 MW is in Baixingtu Sumu, Horqin Left Middle Banner, Tongliao, Inner Mongolia Autonomous Region. A total amount of RMB150 million was invested in the photovoltaic project for poverty alleviation in Horqin Left Middle Banner with an annual electricity generation capacity of 41.24 GWh. Reasonably utilising the alkaline soil of 886 acres, the project will continuously help 918 households with incapacity for work (including the disabled) that have filed an application for poverty registration cards for the next 20 years.

Utilising the abundant sunshine and desirable land resources in Inner Mongolia, CGN New Energy develops the photovoltaic power generation project to promote poverty alleviation and help improve the income of the poor population. At present, the first batch of RMB2,760,000 funds for Horqin Left Middle Banner has been distributed to local poor people. Through exploring ways to establish a long-term poverty alleviation mechanism, we serve as a power engine for the mission of "people out of poverty, villages out of poverty, banners out of poverty".



A photo of CGN New Energy's photovoltaic project for poverty alleviation

# 13 Contribution to Society

## SCIENCE EDUCATION

The development of CGN New Energy is supported by the advancement of technology. Therefore, we believe knowledge is the greatest treasure and hope to pass on the knowledge to surrounding communities. We are dedicated to bringing more resources on scientific education to the regions where our projects operate. Through cooperating with local government and institute to carry out science education activities to impart relevant knowledge and further contribute to the society.

## CASE SHARING: PLACING SCIENCE EDUCATION AT THE SAME PARAMOUNT POSITION AS TECHNOLOGICAL INNOVATION

In terms of science education, CGN New Energy actively responses to the important guidance from President Xi Jinping where science education should be placed at the same paramount position as technological innovation. Through implementing CGN's strategic planning of "technological innovation, high quality, create excellence", we are committed to passing on the scientific knowledge of clean energy and improving the public's understanding of clean energy while developing our businesses.



New Energy Science Education Base at Modou Mountain

To date, CGN New Energy has established 11 demonstrative sites for new energy science education across the country. CGN New Energy was entrusted to manage the Science Education Base in the wind farm at Modou Mountain. Being the largest established new energy science education base in China, the Science Education Base at Modou Mountain is expected to receive approximately 12,000 visitors annually and was rewarded with the title of "Electricity Science Education Base" by the Chinese Society for Electrical Engineering in November 2019. It was another industry title that the Science Education Base received after being rewarded with the title of "Energy Science Education Base" by China Energy Research Society in September 2018.

The Science Education Base at Modou Mountain mainly focuses on science education of wind energy, while also covering solar energy, tidal energy and other new energy. The Education Base contains science education venues such as an exhibition hall for new energy science education, model square, display area for turbine blades, video centre for new energy and a gallery, as well as scatterly located supplementary facilities, including an observation deck for wind turbines, a 100-meter curtain wall for science education, hiking trail for science education and new energy cultural corridors. A visit to the Science Education Base at Modou Mountain is free.

During the Report Period, the Group's community investment:

Money contributed to community/public welfare and charity

RMB1,030,000.00

# 14 Comprehensive Performance

In terms of statistics and presentation of performances, the Group adopts the “operational control” approach to define organisational boundary. The statistical and calculation methodology used in the Report is appropriately indicated. Past data and information of some indicators have been sorted out and presented. In 2019, the Group systematically counted and sorted out the environmental and social data of electricity generation and steam projects under the Group<sup>7</sup>. The items for of data collection and project coverage for 2019 were expanded as compared with 2018; the expanded data contained relevant data from the additional solar and wind projects, therefore, data of some indicators were changed as compared with previous years. The “N/A” in each list indicates that the relevant data<sup>8</sup> are not disclosed or not counted in the year or that the data are not applicable for comparison. The “-” indicates that value of relevant data is 0 in the year. Unless otherwise stated, the data provided in this section are the aggregate data of the corresponding year or the data as at December 31 in the corresponding year in relation to the Group’s projects with operational control and offices in Mainland China, Korea and Hong Kong.

## CORPORATE GOVERNANCE

### Economy and Governance

Economic performance:

Indicator	2019	2018	2017
Revenue (US\$'000)	1,276,281	1,358,487	1,108,560
Operating profit (US\$'000)	231,618	199,181	166,230
Net assets (US\$'000)	1,009,447	954,284	960,375
Earnings per share <sup>9</sup> (US cents)	2.59	2.06	1.44
Tax payment <sup>10</sup> (US\$'000)	41,564	33,767	28,587

Preventing bribery and anti-corruption:

Indicator	2019	2018	2017
Number of cases involved bribery, extortion, fraud and money laundering	0	0	0

<sup>7</sup> Please refer to Chapter 05 – Distribution of Projects in the Report for relevant project status.

<sup>8</sup> The Group’s additional projects during the Reporting Period included a total of 22 wind power and solar power projects across China in Jiangsu Province, Henan Province, Qinghai Province, Gansu Province, Shanxi Province, Shandong Province, Hunan Province, Hebei Province, Guizhou Province, Anhui Province, Shaanxi Province, Hainan Province, Fujian Province and Inner Mongolia Autonomous Region.

<sup>9</sup> Please refer to the earnings per share of the Company, basic and diluted.

<sup>10</sup> Please refer to the expenses on income tax of the Company during the year.



# 14 Comprehensive Performance

## QUALITY ASSURANCE

### Product and Service Quality

Operational performance:

Indicator	2019	2018	2017
Number of lawsuits in which operations are suspected of safety and health issues	0	0	0
Number of cases in which operations are suspected of infringing intellectual property rights	0	0	0
Number of complaints about leaking clients' information	0	0	0

Number and geographical location of suppliers:

Indicator	2019	2018	2017
Total number of suppliers	1,330	1,936	1,500
Mainland China	1,093	1,705	N/A
Hong Kong	–	–	N/A
Korea	237	226	N/A
Other countries and regions	–	5	N/A

# 14 Comprehensive Performance

## GREEN OPERATION

### Emissions and Discharges

Atmospheric pollutant emissions:

Indicator	2019	2018	2017
NO <sub>x</sub> (tonne)	1,389.28	1,501.02	1,819.00
SO <sub>x</sub> (tonne)	129.59	281.50	618.00
Smoke and dust in exhaust gas (tonne)	79.70	113.18	143.00

Greenhouse gas emissions:

Indicator	2019	2018	2017
Total greenhouse gas emissions (Scope 1 and 2) <sup>11</sup> (tonne CO <sub>2</sub> eq)	17,774,698.17	17,874,972.55	11,021,179.00
<b>Scope 1</b>			
CO <sub>2</sub> (tonne)	4,877,713.61	4,963,335.87	4,646,245.00
CH <sub>4</sub> (tonne)	929.56	1,008.26	850.00
N <sub>2</sub> O (tonne)	1,378.14	1,492.48	1,265.00
SF <sub>6</sub> (tonne)	531.40	531.40	461.00
Emission reduction by trees <sup>12</sup> (tonne CO <sub>2</sub> eq)	68.86	75.44	N/A
<b>Scope 2</b>			
CO <sub>2</sub> (tonne)	18,012.93	N/A	N/A
Total greenhouse gas emissions per MWh of electricity generated (tonne CO <sub>2</sub> eq)	1.31	1.34	1.48

Amount of non-hazardous waste generated:

Indicator	2019	2018	2017
Total non-hazardous waste produced (tonne)	76,313.11	79,092.39	90,748.79
Boiler slag (tonne)	47,804.00	62,520.51	70,463.00
Desulfurised gypsum (tonne)	28,056.50	16,040.60	20,203.00
General waste/Domestic waste (tonne)	291.16	261.82	69.00
Waste paper (tonne)	1.81	1.40	0.50
Iron scrap (tonne)	159.64	268.06	13.29
Non-hazardous waste produced per MWh of electricity generated (tonne)	0.0056	0.0059	0.0084

<sup>11</sup> Scope 1 of greenhouse gas emissions were calculated based on the global warming potential values of the IPCC Fifth Assessment Report, and is presented in carbon dioxide equivalent. Scope 2 of greenhouse gas emissions are calculated based on the 2019 Development Report of the Electricity Industry in China and relevant conversion factors provided by the international environmental group Climate Transparency.

<sup>12</sup> The data on emission reduction by trees were calculated based on the conversion factors provided by the Hong Kong Environmental Protection Department and the Hong Kong Electrical and Mechanical Services Department.

## 14 Comprehensive Performance

Amount of hazardous waste generated:

Indicator	2019	2018	2017
Total hazardous waste produced (tonne)	261,457.51	274,538.89	254,358.30
Waste battery (tonne)	2.12	2.39	16.00
Waste oil (tonne)	84.09	178.21	577.00
Waste paint (tonne)	0.30	0.24	0.30
Waste insulation materials (tonne)	–	10.87	13.00
Fly ash (pulverised fuel ash) (tonne)	261,371.00	274,347.18	253,752.00
Hazardous waste produced per MWh of electricity generated (tonne)	0.019	0.021	0.023

Wastewater discharge:

Indicator	2019	2018	2017
Wastewater (tonne)	980,616.10	721,126.43	455,752.00
Wastewater discharged per MWh of electricity generated (tonne)	0.072	0.054	0.042

Compliance of emission and discharge:

Indicator	2019	2018	2017
Number of cases involving illegal discharge of pollutants into the environment	0	0	0

# 14 Comprehensive Performance

## Use of Energy and Resources

Energy consumption<sup>13</sup> :

Indicator	2019	2018	2017
Total energy consumption (direct and indirect energy) (MWh)	24,058,855.17	26,705,987.07	N/A
<b>Direct energy</b>			
Coal (MWh)	10,553,010.95	11,802,082.24	11,924,750.03
Natural gas (MWh)	13,455,144.85	14,870,233.30	11,908,538.81
<b>Indirect energy</b>			
Coal gas (MWh)	23.37	21.18	N/A
Gasoline (MWh)	2,306.15	1,067.08	N/A
Diesel (MWh)	2,095.75	2,184.37	N/A
Fuel oil (MWh)	14,695.75	3,596.84	6,546.48
LPG (MWh)	52.00	N/A	N/A
Purchased electricity (MWh)	31,526.33	26,802.07	N/A
Total energy consumed per MWh of electricity <sup>14</sup>	1.78	2.01	N/A

Water consumption:

Indicator	2019	2018	2017
Total water intake <sup>15</sup> (m <sup>3</sup> )	7,327,731,390.66	N/A	N/A
Surface water (m <sup>3</sup> )	7,326,226,671.30	7,884,356.00	N/A
Municipal water (m <sup>3</sup> )	1,491,295.36	919,500.00	N/A
Ground water (m <sup>3</sup> )	13,424.00	4,755.00	N/A
Amount of water discharged into the natural environment after pre-treatment by the Group (m <sup>3</sup> )	7,320,006,027.30	N/A	N/A
Total water consumption <sup>16</sup> (m <sup>3</sup> )	7,725,363.36	8,808,611.00	643,063.00
Water consumed per MWh of electricity generated (m <sup>3</sup> )	0.571	0.663	1.050
Circulating water (m <sup>3</sup> )	5,782,123.00	14,230,875.00	N/A

<sup>13</sup> Energy consumption data was calculated based on the amount of purchased electricity and fuels consumed and relevant conversion factors provided by the International Energy Agency.

<sup>14</sup> The total energy consumption range calculated in 2017 was different from those in 2018 and 2019, therefore, the energy consumption per MWh of electricity is not listed.

<sup>15</sup> Includes surface water, municipal water and ground water.

<sup>16</sup> Water discharged back to the rivers, lakes, seas and land after pre-treatment, as well as circulating water, are not included in the water consumption.

# 14 Comprehensive Performance

## Mitigating Impact on Natural Environment

Amount of wastes recycled during operational process:

Indicator	2019	2018	2017
Fly ash (pulverised fuel ash) (tonne)	256,836.00	260,199.10	252,241.00
Desulfurised gypsum (tonne)	25,246.50	16,040.60	20,203.00
Paper (tonne)	2.05	2.19	N/A

Environmental conservation:

Indicator	2019	2018	2017
Special funds for environmental protection invested by the projects in Mainland China (RMB)	26,213,597.00	18,370,248.34	N/A
Number of trees held as high as 5 meters or above	2,994	3,280	N/A

Compliance of environmental protection:

Indicator	2019	2018	2017
Number of cases involving damage to the natural environment	0	0	0



# 14 Comprehensive Performance

## CARING FOR EMPLOYEES

### Employee

Cost of employee welfare:

Indicator	2019 US\$'000	2018 US\$'000	2017 US\$'000
Salaries and allowances	65,097	54,873	61,760
Retirement benefits scheme contributions, including directors' emoluments	11,427	12,926	14,629

Employee composition:

Indicator	2019	2018	2017
Total number of employees	1,783 <sup>17</sup>	1,917	1,925
Number of employees of ethnic minorities	117	N/A	N/A
Percentage ratio of employees of ethnic minorities	6.56%	N/A	N/A
<b>By gender<sup>18</sup></b>			
Male employees	1,480	1,521	44
Female employees	303	396	31
<b>By age group<sup>19</sup></b>			
Aged under 30	433	459	5
Aged between 30 and 50	1,157	1,184	43
Aged above 50	193	274	27
<b>By employment type</b>			
Full-time	1,783	1,917	1,925
Part-time	–	–	–
<b>By major work location</b>			
Mainland China	1,545	1,703	1,713
Hong Kong	44	55	75
Korea	194	151	137
Other countries and regions	–	8	–

<sup>17</sup> As the Group's employees were redeployed internally in 2019, the total number of employees in 2019 was different from the number in 2018.

<sup>18</sup> The data for 2017 concerning the gender of employees only included Hong Kong.

<sup>19</sup> The data for 2017 concerning the age group of employees only included Hong Kong.

# 14 Comprehensive Performance

Employee turnover:

Indicator	2019	2018 <sup>20</sup>	2017 <sup>21</sup>
<b>By gender</b>			
Male employees	2.18%	6.35%	13.73%
Female employees	2.26%	10.83%	6.06%
<b>By age group</b>			
Aged under 30	3.78%	7.93%	16.67%
Aged between 30 and 50	1.78%	6.73%	12.24%
Aged above 50	1.03%	6.85%	6.90%
<b>By major work location</b>			
Mainland China	2.03%	7.02%	N/A
Hong Kong	—	N/A	N/A
Korea	2.51%	N/A	N/A

Remuneration and diversity:

Indicator	2019	2018	2017
<b>Ratio of remuneration of female employees to male employees</b>			
Management	1.0	1.0	1.0
General employees	1.0	1.0	1.0
<b>Percentage ratio of female management</b>			
Senior management <sup>22</sup>	—	N/A	N/A
Middle-level management <sup>23</sup>	13.89%	N/A	N/A

## Occupational Health and Safety

Employees' health and safety:

Indicator	2019	2018	2017
Number of work-related fatalities	0	0	0
Number of reportable injuries <sup>24</sup>	1	1	0
Injury rate (per 200,000 hours worked)	0.06	0.16	N/A
Severe Injury rate (per 200,000 hours worked)	11.28	25.43	N/A
Lost work days due to work-related injury	200	162	N/A

<sup>20</sup> The data for 2018 concerning the gender, age group and major work location of employees only include Mainland China.

<sup>21</sup> The data for 2017 concerning the gender and age group of employees only included Hong Kong.

<sup>22</sup> In this Report, it refers to the position of assistant president or above at the Group's headquarters level, and members of the Board of Directors.

<sup>23</sup> In this Report, it refers to the position of controller and senior manager at the Group's headquarters level, as well as positions of controller or above at branch offices level.

<sup>24</sup> Refers to inability of employees to work normally for 3 days or above due to work-related accidents.

# 14 Comprehensive Performance

## Development and Training

Employee training:

Indicator	2019	2018	2017
<b>Percentage of employees who received vocational development training<sup>25</sup></b>			
Male employees	89.94%	34.39%	18.18%
Female employees	89.53%	30.30%	35.48%
Senior management	100.00%	100.00%	45.33%
Middle-level management	43.08%	100.00%	29.52%
General employees	91.57%	66.67%	15.77%
<b>Average hours of vocational development training received per employee<sup>26</sup></b>			
Male employees (hour)	61.51	28.32	8.63
Female employees (hour)	74.69	22.12	10.86
Senior management (hour)	156.80	40.00	20.00
Middle-level management (hour)	79.25	15.00	8.82
General employees (hour)	63.34	13.65	11.25

## CONTRIBUTION TO SOCIETY

### Community Investment

Public welfare and charity:

Indicator	2019	2018	2017
Money contributed to community/ public welfare and charity (RMB) <sup>27</sup>	1,030,000.00	1,974,652.66	200,000.00

<sup>25</sup> The data for 2017 on the percentage of employees who received vocational development training only included Hong Kong. The data scope of the percentage of employees who received vocational development training per employee by rank in 2018 included Hong Kong office after internal employee arrangement.

<sup>26</sup> The data for 2017 on the average hours of vocational development training received per employee only included Hong Kong. The data scope of the average hours of vocational development training received per employee by rank in 2018 included the Hong Kong office after the adjustment of internal employee arrangement.

<sup>27</sup> Including monetary value of input fund and resources for poverty relief and public welfare.

## 15 Prospects in 2020

Looking forward to 2020, the world economic situation is expected to improve, but there are more downside risks, more uncertainties and more complex risks and challenges. Environmental awareness has gradually gained popular support, the migration of global energy structure towards low-carbon development has accelerated, non-fossil energy has gradually become the main force of the world's energy development, and the proportion of clean energy is expected to rise constantly. The report of the 19th NCCPC proposed to strengthen the clean energy industry, to promote the revolution of energy production and consumption, to establish a clean, low-carbon, safe and efficient energy system and to build a beautiful China. China is vigorously advocating the development of clean energy, which provides a unique opportunity for the rapid development of CGN New Energy's related businesses. We will continue to explore the clean energy market, regard providing safe, environmentally friendly and economic clean energy to the society as the primary responsibility for development, be aligned with the national strategy, and strive to become the leader in the industry.

At present, the wind power business of the Group has reached a mature stage that covers all segments of the industry, including wind power generation and providing professional services. The standardisation, serialisation, and scale of the Group's wind power construction, operation and maintenance are in the industry's leading position. Our solar power stations and other new energy's investment, construction, and operation and maintenance as well as solar energy-related technology research and development, have also been equipped with strong project operation and maintenance capacity and leading technology research and development capacity.

Facing the future macroeconomic environment and the development trend of the electric power industry, the Group will continue adhering to the mission of "provide clean energy to benefit mankind", upholding the concept of sustainable development in all environmental and social aspects, constantly seeking to acquire other high-quality clean and renewable energy power generation projects, promoting core competence of operation and maintenance in wind power and solar power generation businesses, and striving to improve the Group's competitiveness and market position in the non-nuclear clean energy industry.

# 16 Independent Assurance Statement

To the Board of Directors of CGN New Energy Holdings Co., Ltd.:

CECEP (HK) Advisory Company Limited ("**CECEPAC (HK)**" or "**We**") has been engaged by CGN New Energy Holdings Co., Ltd. ("**CGN New Energy**") to conduct an independent limited assurance engagement (the "**Assurance Engagement**") on the information and data related to sustainable development in the 2019 Environmental, Social and Governance Report (the "**ESG Report**") of CGN New Energy.

CECEPAC (HK) evaluated the nature and extent of CGN New Energy's adherence to the AA1000 AccountAbility Assurance Standard (2008) (the "**AA1000AS**"). Moreover, CECEPAC (HK) has also been engaged to conduct the Assurance Engagement on the reliability and accuracy of specific performance information disclosed in the ESG Report in accordance with the Environmental, Social and Governance Reporting Guide (the "**ESG Reporting Guide**") published by the Stock Exchange of Hong Kong Limited (the "**Stock Exchange**").

## I. INDEPENDENCE AND COMPETENCE

CECEPAC (HK) was not involved in collecting and calculating data involved in the ESG Report, or in the development of the ESG Report. CECEPAC (HK)'s activities are independent from CGN New Energy. There is no relationship between CECEPAC (HK) and CGN New Energy beyond the contractual agreement for providing proper service of assurance.

The assurance team of CECEPAC (HK) is composed of experienced consultants in the industry who have received professional training on the standards related to sustainable development, including Global Reporting Initiative Standards, AA1000AS, ESG Reporting Guide, ISO 14064, ISO 9001, etc.

The assurance team of CECEPAC (HK) has extensive experience in conducting the Assurance Engagement and has sufficient understanding and capabilities of implementation of AA1000AS. Moreover, the Assurance Engagement related to sustainable development issues was carried out in line with CECEPAC (HK)'s internal assurance protocol.

## II. CGN NEW ENERGY'S RESPONSIBILITIES

CGN New Energy is responsible for the preparation and presentation of the ESG Report in accordance with the ESG Reporting Guide. CGN New Energy is also responsible for implementing relevant internal control procedures to ensure that the contents of the ESG Report are free from material misstatement, whether due to fraud or error.

## III. ASSURANCE PROVIDER'S RESPONSIBILITIES

CECEPAC (HK) is responsible for issuing an independent assurance statement in accordance with AA1000AS and ESG Reporting Guide to the Board of Directors of CGN New Energy. This independent assurance statement applies solely to the ESG Report in the specified scope, expresses a conclusion on the assurance work, and does not serve any other intents or purposes.

CECEPAC (HK) ensures that all personnel involved in the assurance work meet professional qualification, training, and relevant work experience requirements, and are demonstrably competent. CECEPAC (HK) also ensures that personnel involved in the assurance work are capable of conducting assurance engagements. All results of assurance are internally reviewed by senior staff to ensure that methodologies used in the process are sufficiently stringent and transparent.



# 16 Independent Assurance Statement

## IV. ASSURANCE SCOPE

- The scope of the Assurance Engagement is limited to information and data in the ESG Report that relate to CGN New Energy and its subsidiaries only and does not include CGN New Energy's suppliers, contractors, and information or data provided by other third parties.
- A Type 2 Moderate Level of Assurance was adopted by CECEPAC (HK) to evaluate the nature and extent of CGN New Energy's adherence to the three principles (Inclusivity, Materiality, Responsiveness) in accordance with AA1000AS.
- Specified performance information disclosed in the ESG Report was agreed upon and selected between CGN New Energy and CECEPAC (HK) for assurance. The selected information is as follows :
  - Key performance indicator(s) related to the topic "Energy Use and Efficiency"
  - Key performance indicator(s) related to the topic "Occupation Health and Safety of Employees"
  - Key performance indicator(s) related to the topic "Information Disclosure and Regulatory Compliance"
- CECEPAC (HK)'s assurance work was with respect to information disclosed from 1 January 2019 to 31 December 2019. Any information that falls outside this period or any other data that is disclosed in the ESG Report is not included within the assurance scope. Therefore, we do not express any conclusions on this information.
- The scope of the Assurance Engagement is confined to the information provided by CGN New Energy only. Any queries regarding the content or related matters within this assurance statement should be addressed to CGN New Energy only.

## V. METHODOLOGY

CECEPAC (HK) conducted Assurance Engagement only within the scope of Dangtu Project in Anhui and Linqu Longgang Project in Shandong of CGN New Energy, and the assurance work included:

- Evaluating the appropriateness of CGN New Energy's stakeholder engagement participation process;
- Conducting interviews<sup>1</sup> with personnel involved with sustainability management, report preparation and the provision of relevant information;
- Assessing whether the reporting and management approach for the ESG Report responded to the principles of Inclusivity, Materiality, and Responsiveness as defined in the AA1000AS;
- Conducting random sampling of evidence pertaining to quantitative specified performance information;
- Recalculating quantitative specified performance information; and
- Performing other procedures we deemed necessary.

Assurance work was performed and the conclusions within were based upon information and data provided by CGN New Energy to CECEPAC (HK), and on assumptions that the information provided was complete and accurate.

<sup>1</sup> Being limited by the spread of coronavirus disease (COVID-19), the Assurance Engagement was conducted through online interview in the form of telephone conference.

# 16 Independent Assurance Statement

## VI. LIMITATIONS

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

## VII. CONCLUSIONS

In accordance with the principles of Inclusivity, Materiality and Responsiveness in the AA1000AS, the ESG Reporting Guide, our conclusions are as follows:

### Inclusivity

CGN New Energy has identified key stakeholders. Regular communication with the key stakeholders is carried out in various ways to understand their expectations and concerns. In our professional opinion, CGN New Energy adheres to the Principle of Inclusivity.

### Materiality

CGN New Energy has conducted materiality assessment for the ESG Report and collected opinions of key stakeholders. Proper methods were used to identify material issues and the outcome of the materiality assessment has been stated in the ESG Report. In our professional opinion, CGN New Energy adheres to the Principle of Materiality.

### Responsiveness

With the aim of supporting the discussion, responding, tracking, and improvement of material issues, CGN New Energy has developed different policies to continuously respond to its material issues and established channels for its stakeholders to collect their views. In our professional opinion, CGN New Energy adheres to the Principle of Responsiveness.

### ESG Reporting Guide of the Stock Exchange

The general disclosure and key performance indicators of the environmental and social aspects in the ESG Report, in all material respects, are disclosed in accordance with the “Comply or Explain” Provisions of the ESG Reporting Guide of the Stock Exchange. CGN New Energy has disclosed the participation of its key stakeholders in an analysis process on important issues and its materiality matrix; has described objectively the impact of its business and carried out statistics and disclosure work on the data relating to the environmental and social aspects. Our view in the area for enhancement to the ESG Report was adopted by CGN New Energy prior to the issuance of this assurance statement.

### Specified Performance Information

Based on the assurance procedures that CECEPAC (HK) has performed and the evidence we have obtained, no specific issue has come to our attention that causes us to believe that the disclosures of selected specified performance information are unreliable or inaccurate, in all material respects.

# 16 Independent Assurance Statement

## VIII. RECOMMENDATIONS

We recommend that CGN New Energy considers strengthening the below items in the future:

- Strengthen the training about data collection and reporting for relevant personnel to further improve the statistical accuracy of data;
- Continue to refine the data management process, and establish internal information management mechanisms through regular analysis, communication, and feedback.



6 July 2020  
Hong Kong

# Appendix I Laws and Regulations Complied by the Group during the Reporting Period

The laws and regulations <sup>28</sup> corresponding to the contents of ESG Reporting Guide		Compliance of the Group
<b>A. Environment</b>		
<b>Aspect A1:</b>	<b>Emissions</b>	
Mainland China	<p>Environmental Protection Law of the People's Republic of China</p> <p>Atmospheric Pollution Prevention and Control Law of the People's Republic of China</p> <p>Environmental Protection Tax Law of the People's Republic of China</p> <p>Regulation on the Implementation of the Environmental Protection Tax Law of the People's Republic of China</p> <p>Law of the People's Republic of China on Prevention and Control of Water Pollution</p> <p>Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste</p>	During the Reporting Period, the Group did not violate any laws and regulations related to air and greenhouse gas emissions, discharges into water and land, generation of hazardous and non-hazardous waste, and mitigation of noise listed in "Appendix I" of the Report.
Hong Kong	<p>Water Pollution Control Ordinance</p> <p>Waste Disposal Ordinance</p>	
Korea	<p>Clean Air Conservation Act</p> <p>Noise and Vibration Control Act</p> <p>Water Quality and Aquatic Ecosystem Conservation Act</p> <p>Wastes Control Act</p> <p>Act on the Promotion of Saving and Recycling of Resources</p> <p>Environmental Impact Assessment Act</p>	

<sup>28</sup> The operation of CGN New Energy complies with laws and regulations; the laws and regulations which the Group has complied with include but are not limited to the contents listed in "Appendix I".

# Appendix I    Laws and Regulations Complied by the Group during the Reporting Period

The laws and regulations <sup>29</sup> corresponding to the contents of ESG Reporting Guide		Compliance of the Group
<b>B. Social</b>		
<b>Aspect B1:</b>	<b>Employment</b>	
Mainland China	Labor Law of the People's Republic of China <sup>29</sup> Labor Contract Law of the People's Republic of China Regulation on the Implementation of the Labor Contract Law of the People's Republic of China Social Insurance Law of the People's Republic of China Regulation on Paid Annual Leave for Employees Law of the People's Republic of China on the Protection of Women's Rights and Interests <sup>30</sup> Law of the People's Republic of China on the Protection of Minors <sup>31</sup> Labor Dispute Mediation and Arbitration Law of the People's Republic of China Regulation on the Administration of Foreign Labor Cooperation Law of the People's Republic of China on the Protection of Disabled Persons Regulation on the Employment of the Disabled	During the Reporting Period, the Group did not violate any laws and regulations related to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunities, diversity, anti-discrimination, and other benefits and welfare listed in "Appendix I" of the Report.
Hong Kong	Employment Ordinance <sup>32</sup> Employees' Compensation Ordinance Minimum Wage Ordinance	
Korea	Labor Standard Act Fair Hiring Procedure Act Employment Insurance Act Employment Security Act Framework Act on Employment Policy	

<sup>29</sup> To avoid repetitive statement, the laws and regulations also apply to "Aspect B2" and "Aspect B4" in this appendix.

<sup>30</sup> To avoid repetitive statement, the laws and regulations also apply to "Aspect B4" in this appendix.

<sup>31</sup> To avoid repetitive statement, the laws and regulations also apply to "Aspect B4" in this appendix.

<sup>32</sup> To avoid repetitive statement, the laws and regulations also apply to "Aspect B4" in this appendix.



# Appendix I Laws and Regulations Complied by the Group during the Reporting Period

The laws and regulations <sup>28</sup> corresponding to the contents of ESG Reporting Guide		Compliance of the Group
<b>Aspect B2:</b>	<b>Health and Safety</b>	
Mainland China	Production Safety Law of the People's Republic of China Provisions on the Supervision and Administration of Occupational Health at Work Sites Fire Protection Law of the People's Republic of China Law of the People's Republic of China on the Prevention and Control of Occupational Diseases Regulation on Work-Related Injury Insurances Labor Insurance Regulations of the People's Republic of China	During the Reporting Period, the Group did not violate any laws and regulations related to providing a safe working environment and protecting employees from occupational hazards listed in "Appendix I" of the Report.
Hong Kong	Occupational Safety and Health Ordinance	
Korea	Occupational Safety and Health Act Act on Fire Prevention and Installation, Maintenance, and Safety Control of Fire-Fighting Systems Industrial Accident Compensation Insurance Act	
<b>Aspect B4:</b>	<b>Labour Standards</b>	
Mainland China	Provisions on the Prohibition of Using Child Labor	During the Reporting Period, the Group did not violate any laws and regulations related to preventing child and forced labour listed in "Appendix I" of the Report.
Korea	Child Welfare Act	

# Appendix I    Laws and Regulations Complied by the Group during the Reporting Period

The laws and regulations <sup>28</sup> corresponding to the contents of ESG Reporting Guide		Compliance of the Group
<b>Aspect B6:</b>	<b>Product Responsibility</b>	
Mainland China	Electric Power Law of the People's Republic of China Production Safety Law of the People's Republic of China Trademark Law of the People's Republic of China Standardisation Law of the People's Republic of China Regulations for the Implementation of the Standardisation Law of the People's Republic of China Tort Law of the People's Republic of China Patent Law of the People's Republic of China	During the Reporting Period, the Group did not violate any laws and regulations related to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress listed in "Appendix I" of the Report.
Korea	Electric Utility Act	
<b>Aspect B7:</b>	<b>Anti-corruption</b>	
Mainland China	Criminal Law of the People's Republic of China Anti-Corruption and Bribery Law of the People's Republic of China Anti-Unfair Competition Law of the People's Republic of China Law of the People's Republic of China on Bid Invitation and Bidding Anti-Money Laundering Law of the People's Republic of China	During the Reporting Period, the Group did not violate any laws and regulations related to bribery, extortion, fraud and money laundering listed in "Appendix I" of the Report.
Hong Kong	Prevention of Bribery Ordinance	
Korea	Unfair Competition Prevention and Trade Secret Protection Act	

## Appendix II Stock Exchange ESG Reporting Guide Content Index

Subject Areas, Aspects, General Disclosures and KPIs		Location of Disclosure or Remarks
<b>A. Environment</b>		
<b>Aspect A1:</b>	<b>Emissions</b>	
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Green Operation – Green Management System, Monitoring and Management Mechanism for Emission and Discharge
KPI A1.1	The types of emissions and respective emissions data.	Comprehensive Performance
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Green Operation – Monitoring and Management Mechanism for Emission and Discharge; Comprehensive Performance
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Green Operation – Monitoring and Management Mechanism for Emission and Discharge; Comprehensive Performance
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Green Operation – Monitoring and Management Mechanism for Emission and Discharge; Comprehensive Performance
KPI A1.5	Description of measures to mitigate emissions and results achieved.	Green Operation – Monitoring and Management Mechanism for Emission and Discharge
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Green Operation – Monitoring and Management Mechanism for Emission and Discharge

## Appendix II Stock Exchange ESG Reporting Guide Content Index

Subject Areas, Aspects, General Disclosures and KPIs		Location of Disclosure or Remarks
<b>Aspect A2:</b>	<b>Use of Resources</b>	
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Green Operation – Use of Energy and Resources; Issues relevant to the use of packaging materials are not applicable to the Group due to the Group's business nature.
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Comprehensive Performance
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Comprehensive Performance
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Green Operation – Use of Energy and Resources
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Green Operation – Use of Energy and Resources
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	This indicator is not applicable to the Group due to the Group's business nature.
<b>Aspect A3:</b>	<b>The Environmental and Natural Resources</b>	
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Green Operation – Green Management System
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Green Operation – Green Management System

## Appendix II Stock Exchange ESG Reporting Guide Content Index

Subject Areas, Aspects, General Disclosures and KPIs		Location of Disclosure or Remarks
<b>B. Social</b>		
<b>Employment and Labour Practices</b>		
<b>Aspect B1:</b>	<b>Employment</b>	
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Caring for Employees – Standardised Employment
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	Caring for Employees – Standardised Employment; Comprehensive Performance
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Comprehensive Performance



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Subject Areas, Aspects, General Disclosures and KPIs		Location of Disclosure or Remarks
<b>Aspect B2:</b>	<b>Health and Safety</b>	
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Caring for Employees – Occupational Health and Safety
KPI B2.1	Number and rate of work-related fatalities.	Comprehensive Performance
KPI B2.2	Lost days due to work injury.	Comprehensive Performance
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Caring for Employees – Occupational Health and Safety
<b>Aspect B3:</b>	<b>Development and Training</b>	
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.  Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	Caring for Employees – Occupational Health and Safety, Mutual Growth and Progress
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Comprehensive Performance
KPI B3.2	The average training hours completed per employee by gender and employee category.	Comprehensive Performance
<b>Aspect B4:</b>	<b>Labour Standards</b>	
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Caring for Employees – Standardised Employment
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Caring for Employees – Standardised Employment
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Caring for Employees – Standardised Employment

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Subject Areas, Aspects, General Disclosures and KPIs		Location of Disclosure or Remarks
<b>Operating Practices</b>		
<b>Aspect B5:</b>	<b>Supply Chain Management</b>	
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Quality Assurance – Supply Chain Management
KPI B5.1	Number of suppliers by geographical region.	Quality Assurance – Supply Chain Management; Comprehensive Performance
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Quality Assurance – Supply Chain Management
<b>Aspect B6:</b>	<b>Product Responsibility</b>	
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Quality Assurance: Issues relevant to health, advertising and labelling relating to the supplied electricity and the methods of redress are not applicable to the Group due to the Group's business nature.
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	This indicator is not applicable to the Group due to the Group's business nature.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Quality Assurance – Intellectual Property Rights and Privacy Protection; Comprehensive Performance
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Quality Assurance – Intellectual Property Rights and Privacy Protection
KPI B6.4	Description of quality assurance process and recall procedures.	This indicator is not applicable to the Group due to the Group's business nature.
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Quality Assurance – Intellectual Property Rights and Privacy Protection

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Subject Areas, Aspects, General Disclosures and KPIs		Location of Disclosure or Remarks
<b>Aspect B7:</b>	<b>Anti-corruption</b>	
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Corporate Governance – Anti-corruption
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Comprehensive Performance
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Corporate Governance – Anti-corruption
<b>Community</b>		
<b>Aspect B8:</b>	<b>Community Investment</b>	
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Contribution to Society
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Contribution to Society
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Contribution to Society-Poverty-Alleriation by Industrial Development, Education and Science Education