

ENVIRONMENTAL, SOCIAL  
AND GOVERNANCE REPORT

2018

中广核  CGN

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

Natural Energy Powering Nature

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# 01 Definitions

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

“13th Five-Year Plan”	the 13th Five-Year Plan for Economic and Social Development of the People’s Republic of China
“19th NCCPC”	the 19th National Congress of the Communist Party of China
“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.
“EHS”	Environmental Health and Safety
“ESG”	Environmental, Social and Governance
“Group”	the Company and its subsidiaries from time to time
“Hefei Hi-tech Sinotrans Project”	Hefei Hi-tech Sinotrans Photovoltaic Project in Anhui
“Hong Kong”	the Hong Kong Special Administrative Region of the PRC
“Insurance and Housing Fund”	the social endowment insurance, urban employee medical insurance, work-related injury insurance, maternity insurance and unemployment insurance in China
“Jiangsu Haian Project”	Haian Cogeneration Project in Jiangsu
“Jiaxing PV Project”	Jiaxing Xiuzhou Photovoltaic Project in Zhejiang
“Jiyuan Juli Project”	Jiyuan Juli Photovoltaic Project in Henan
“Korea”	the Republic of Korea
“Lankao Lanyang Project”	Lankao Lanyang Wind Farm Project in Henan
“Laoling Tieying Phase II Project”	Laoling Tieying Photovoltaic Phase II Project in Shandong
“Laoling Tieying Project”	Laoling Tieying Photovoltaic Project in Shandong
“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



# 01 Definitions

"Nantong Project"	Nantong Cogeneration Project in Jiangsu
"National Pension"	the National Pension in Korea
"OHS"	Occupational Health and Safety
"PRC" or "China"	the People's Republic of China
"Report"	2018 ESG report of the Company
"Reporting Period"	the period from 1 January 2018 to 31 December 2018
"RMB"	Renminbi, the lawful currency of the PRC
"Rudong Offshore Wind Project"	Rudong Offshore Wind Farm Project in Jiangsu
"Shanghai Jinqiao Project"	Jinqiao Steam Project in Shanghai
"Siyang Beichuan Project"	Siyang Beichuan Fishery-Solar Hybrid Photovoltaic Project in Jiangsu
"Stock Exchange"	The Stock Exchange of Hong Kong Limited
"US\$"	United States dollars, 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 the 3rd ESG report. 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.

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 concept, actions and related performance of the sustainable development of the Group.

### REPORTING PERIOD AND SCOPE

Unless otherwise mentioned, the Report mainly describes the specific policies and performance of the Group in terms of sustainable development work during the period from 1 January 2018 to 31 December 2018. For the sake of continuity and comparability of the Report, some contents in the Report shall be extended as needed. Please refer to the section headed “Comprehensive Performance” in the Report for data details.

The main contents of the Report cover the Group’s wind, solar, gas-fired, coal-fired<sup>1</sup>, oil-fired, hydro, cogeneration, fuel cell and steam projects in China and Korea. Contents of the Report are mainly based on and determined through the materiality assessment and stakeholder engagement. 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 2019 to ensure that it covers major environmental, social and governance issues of the Group.

### REPORT ACQUISITION AND FEEDBACK

The online version of the Report is published on the Stock Exchange’s website (<http://www.hkexnews.hk>) and the Company’s website (<http://www.cgnne.com>).

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

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

## 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, 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 2018, under the trend of anti-globalization with frequent international trade frictions, the world's outlook was full of uncertainties. In the face of these challenges, China has been steadily stabilizing and gaining momentum by its macro-economic control with supply-side structural reform as the main objective. Overall, China has maintained a steady and sound momentum of economic and social development. 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 2018, China's installed capacity of renewable energy power generators reached 728 GW with a growth of 12% year-on-year. Among it, 184 GW of wind power and 175 GW of photovoltaic power were installed, which had a year-on-year growth of 12.4% and 33.9%, respectively. Renewable energy accounts for 38.3% of the total installed capacity, which had a year-on-year growth of 1.7%. The role of renewable energy as a clean energy alternative is becoming increasingly prominent.

In 2018, the National Energy Administration organized relevant parties to actively undertake measures to promote the consumption of renewable energy in accordance with the *Measures for Resolving Curtailment of Hydro, Wind and PV Power Generation* (《解決棄水棄風棄光問題實施方案》) and the *Action Plan for Improving Clean Energy Consumption (2018-2020)* (《清潔能源消費行動計劃(2018-2020年)》); with emphasis in promoting energy production and consumption revolution, in promoting the energy industrial structure adjustment, and in promoting clean energy consumption as the core. By carrying out "clean, low-carbon, safe and efficient" principle and effectively solving the problem of clean energy consumption, to realize the continuously healthy and orderly development of the renewable energy industry. In 2018, the curtailment of wind and photovoltaic energy was further alleviated. The average domestic wind and photovoltaic energy curtailment rates were 7% and 3% respectively, with a decrease of 5% and 2.8% year-on-year. The situation in most areas with severe wind curtailment and power limitation has been improved, and the amount of photovoltaic energy curtailment and rate of photovoltaic energy curtailment have also achieved "double drop". According to the *Plan of New Construction Scale for Wind Power during 2017-2020* (《2017-2020年風電新增建設規模方案》) and the *Plan of New Construction Scale for Photovoltaic Station during 2017-2020* (《2017-2020年光伏電站新增建設規模方案》), the scale of cumulative new constructions for wind power and photovoltaic power generation in China will reach 110.41 GW and 86.5 GW respectively during 2017-2020. Therefore, wind power and photovoltaic industry is embracing great development opportunities.

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 of 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, optimize team building and internal governance, safeguard the legitimate rights and interests of key stakeholders including shareholders and to enhance corporate brand value.

**Chen Sui**  
Chairman

## 04 President's Statement



2018 is a transitional year of the 13th Five-Year Plan. China continued to implement a number of policies and launched pilot projects; energy system reform is expected to reach a new high. The report of the 19th NCCPC clearly points out that the country needs to accelerate the construction of ecological civilization and build a beautiful China. The priority among which is to promote green development, promote the revolution in energy generation and consumption, and to build a clean, low-carbon, safe and efficient energy system. 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 2018, China's renewable energy accounted for 26.7% of the country's electricity generation. As of 31 December 2018, the Group's power generation projects have an attributable installed capacity of 5,275 MW with the electricity sales volume of about 12,643 GWh, while clean and renewable energy projects (i.e., wind, solar, gas-fired, hydro and fuel cell projects) account for 66.5% 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; CGN New Energy's decentralized wind power project located in Lankao County, Henan Province has successfully completed the hoisting of all wind power units, demonstrating the technical level of the Group in overcoming the limitations of objective factors such as severe environmental protection situation, complex tower mixing process and continuous cold and snowy weather. 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 ecological environment, atmospheric environment, and water environment, and is consistent in the pursuit of 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 teach our employees about safety knowledge. While caring for employees' needs, we also attach importance to the development of communities around our business operation sites. In 2018, 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, it is able to realize a harmonious and win-win situation between the Company's development and the community.

Looking ahead, clean energy remains the focus of the national energy revolution, and its development is expected to 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

20 March 2019

## 05 Distribution of Projects



Wind



Solar



Gas-fired



Hydro



Cogen



Coal-fired



Oil-fired



Steam

### Henan



Lankao Lanyang

Total Installed Capacity

Equity

10 MW

100%



Puguang

250 MW

100%



Jiyuan Juli

5.7 MW

100%

### Gansu



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%

### Qinghai



Xitieshan I

Total Installed Capacity

Equity

10 MW

100%

Xitieshan II

30 MW

100%

Xitieshan III

60 MW

100%

Wulan

30 MW

100%

Ledu

30 MW

100%

### Sichuan



Mianyang

Total Installed Capacity

Equity

51 MW

75%

### Guangxi



Fushi I

Total Installed Capacity

Equity

54 MW

70%

Fushi II

18 MW

100%

Zuojiang

72 MW

60%

### Guangdong



Airport I

Total Installed Capacity

Equity

9.9 MW

100%

Airport II

4.5 MW

100%

Shangyang

2 MW

100%

### Hunan



Jiajia

Total Installed Capacity

Equity

6 MW

100%

### Inner Mongolia



Wuhai

Total Installed Capacity

Equity

50 MW

100%

Chayou Zhongqi

30 MW

53.67%



Chifeng New Golden Energy

60 MW

74%

# 05 Distribution of Projects

## Korea

		Total Installed Capacity	Equity
	Daesan I	507 MW	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

		Total Installed Capacity	Equity
	Tangwangshan I	20.4 MW	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 Tieying	15 MW	100%
	Laoling Tieying II	20 MW	100%

## Jiangsu

		Total Installed Capacity	Equity
	Haian	27 MW	100%
	Nantong	48 MW	100%
	Siyang Beichuan	23.5 MW	100%



## Shanghai

		Total Installed Capacity	Equity
	Jinqiao	295 tons/hour	60%
	Tongce	4.5 MW	100%



## Anhui

		Total Installed Capacity	Equity
	Hefei Hi-tech Sinotrans	4.6 MW	100%

## Zhejiang

		Total Installed Capacity	Equity
	Ninghai Yishi	48 MW	100%
	Tuci	30 MW	100%
	Zhushan	45 MW	100%
	Jiaxing	10.6 MW	100%

## Hubei

		Total Installed Capacity	Equity
	Hanneng	176.5MW	60%
	Huangshi I	760 MW	49%
	Huangshi II	1,360 MW	49%

## 06 Highlights of 2018

### FINANCIAL AND OPERATING HIGHLIGHTS

Revenue	US\$1,358 million, increased by 23% as compared with 2017 (2017: US\$1,109 million)
EBITDA	US\$347 million, increased by 14% as compared with 2017 (2017: US\$304 million)
Net profit attributable to owner of the Company	US\$88 million, increased by 43% as compared with 2017 (2017: US\$62 million)
EPS	2.06 US cents, increased by 43% as compared with 2017 (2017: 1.44 US cents)
Attributable installed capacity	5,275 MW, increased by 6% as compared with 2017 (2017: 4,962 MW)
Electricity sales volume	12,643 GWh, increased by 16% as compared with 2017 (2017: 10,858 GWh)

Clean and renewable energy portfolio	Attributable installed capacity	Year	Attributable installed capacity	Conventional energy portfolio
Solar, Wind, Hydro, Gas-fired	3,504.9 MW (66.5%)	2018	1,769.6 MW (33.5%)	Coal-fired, Oil-fired, Cogeneration
	3,192.8 MW (64.3%)	2017	1,769.6 MW (35.7%)	
	3,215.0 MW (64.5%)	2016	1,769.6 MW (35.5%)	

- Mr. Li Yilun, the President of the Company, was awarded the "Top Ten People in the New Energy Industry of 2018" in December 2018. Mr. Mou Guangfeng, Vice President of China Association of Environmental Protection Industry presents an award to Mr. Li Yilun.



- Mr. Xing Ping, the director, Mr. Leung Chi Ching Frederick, the independent non-executive director and Mr. Lee Kin, the assistant president, of the Company, went to Shandong branch office for site visit and attended the forum in November 2018.



## 06 Highlights of 2018

- Mr. Yang Xiaosheng, the independent non-executive director of the Company conducted the research on Delingha 50MW photothermal power generation project entrusted to be managed by CGN New Energy in September 2018.



- CGN New Energy has successfully completed the hoisting of all wind turbines in the decentralized wind power project located in Lankao County, Henan Province, which demonstrated the Company's ability in overcoming the limitations of severe environmental protection situation, complex tower mixing process, continuous cold and snowy weather and other objective factors.



## 06 Highlights of 2018

- Under the correct leadership of the Group, all the employees of the entrusted Beiliu Dachongshan Project in Guangxi worked together to successfully complete the electrification of the booster station, marking that the booster station was officially put into operation.



- Delingha Concentrated Solar Thermal Power Project entrusted by CGN New Energy was in commercial operation. It was the first large-scale parabolic trough solar thermal power plant in China. The completion of this project places China as the eighth country in the world that has a large-scale solar thermal power plant.



The Report basically presents the financial and business status of CGN New Energy in 2018. For details, please refer to our *Annual Report 2018*.

## 06 Highlights of 2018

### PERFORMANCE OF ENVIRONMENTAL PROTECTION

In respect of green operation, 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 from site selection, deliberation, construction to operation and maintenance of projects. 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 2018, the Company’s electricity sales volume of solar, wind and hydro portfolio were 3,630.1 GWh, contributing to the power industry for addressing global climate change, reducing air pollution and mitigating environmental impacts.

In 2018, generation of the following pollutants were reduced<sup>2</sup> :

Carbon dioxide (CO <sub>2</sub> )	3,063,804.4 tonnes
Nitrogen oxides (NO <sub>x</sub> )	907.5 tonnes
Sulfur dioxide (SO <sub>2</sub> )	943.8 tonnes
Smoke and dust	217.8 tonnes
Wastewater	217,806.0 tonnes

### EMPLOYEES’ WELFARE AND OCCUPATIONAL HEALTH AND SAFETY

A good team of employees lays a solid foundation for the success of 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. For new recruits, we will arrange on-site exercise for them to acquire basic skills systematically in a more realistic setting of work environment. This will raise their safety awareness, foster a harmonious relationship among colleagues and enhance team cohesion.

### COMMUNITY CONTRIBUTION

CGN New Energy implements the operational philosophy of “good neighbor, good friend and good partner” to continuously contribute to society. The Group will launch a wide range of poverty alleviation projects including infrastructure construction, industry development, employment guarantee, cultural education and voluntary services, etc. We strive to connect and serve local people through each project and 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 2018 of Power Industry in China*, and referring to the Group’s electricity cumulative sales data of solar, wind and hydro portfolio during the Reporting Period.

## 07 About CGN New Energy

### COMPANY OVERVIEW

CGN New Energy, listed on the Stock Exchange, is an independent power producer in Asia with diverse fuel types and geographical coverage. Our assets portfolio currently comprises wind, solar, gas-fired, coal-fired, oil-fired, hydro, cogeneration and fuel cell projects as well as steam project located in China and Korea power market. Our business covers 11 provinces, two autonomous regions and a municipality in China. As of 31 December 2018, the gross attributable installed capacity of the Group reached 5,275 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.

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 (formerly known as CGNPC Huamei Investment Limited).

### CORPORATE VALUE

We adhere to the core value of “doing things right in one go” and adopt the orientation based on the 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 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

- 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"

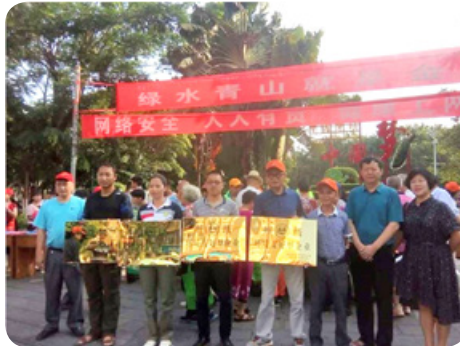
## 07 About CGN New Energy

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



- “Most Progress in IR Award” in the HKIRA 3rd Investor Relations Awards 2017

## 07 About CGN New Energy

- 2016
- “2016 Outstanding Listed Company Award” in the 14th China Finance and Economy Overseas Industry Billboard
  - A wind power informatization project of CGN New Energy won the “First Prize of Power Industry Informatization in 2016”



- Honorary title of “Corporate Culture Brand Construction Advanced Unit” by the National Electric Power Industry

## 08 Stakeholder Engagement and Materiality Assessment

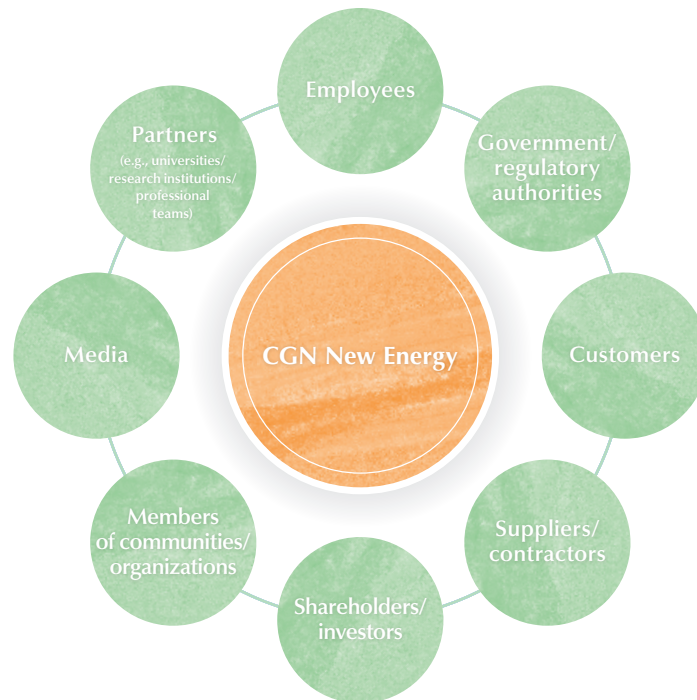
### COMMUNICATION WITH STAKEHOLDERS

Maintaining good communication with stakeholders is an important part of CGN New Energy's long-term development management. The Group accurately identifies the key stakeholders related to our own operation, and communicates with them through meetings, regular visits, satisfaction surveys and other forms, so as to understand their expectations and interest demands for the Group's development process and even the future. The Group will take measures in an endeavor to respond 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 minimize 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 over 5 large-scale "Corporate Day" held by investment banks and securities firms to meet with over 100 investors of different types in Hong Kong, Beijing and Shanghai. In addition, the Company organized 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/organizations	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 special interviews are conducted from time to time based on actual needs.
Partners (e.g., universities/ research institutions/ professional teams)	Inspection and supervision of work Telephone/email Interview	From time to time

## 08 Stakeholder Engagement and Materiality Assessment

### MATERIALITY ASSESSMENT

In order to make the Report reflect the environmental, social and governance impacts of CGN New Energy to the greatest extent, and to take into account the information needs of key stakeholders for the Group at the above levels, the Group identified the material issues to be disclosed in the 2018 ESG Report through the following materiality assessment process.

Process for identifying material issues in the Report	Step 1 Identify the most relevant ESG issues of CGN New Energy
	Step 2 Conduct survey of materiality assessment
	Step 3 Create materiality metric according to the survey result and identify the priority issues
	Step 4 Review and confirm the materiality of identified issues

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

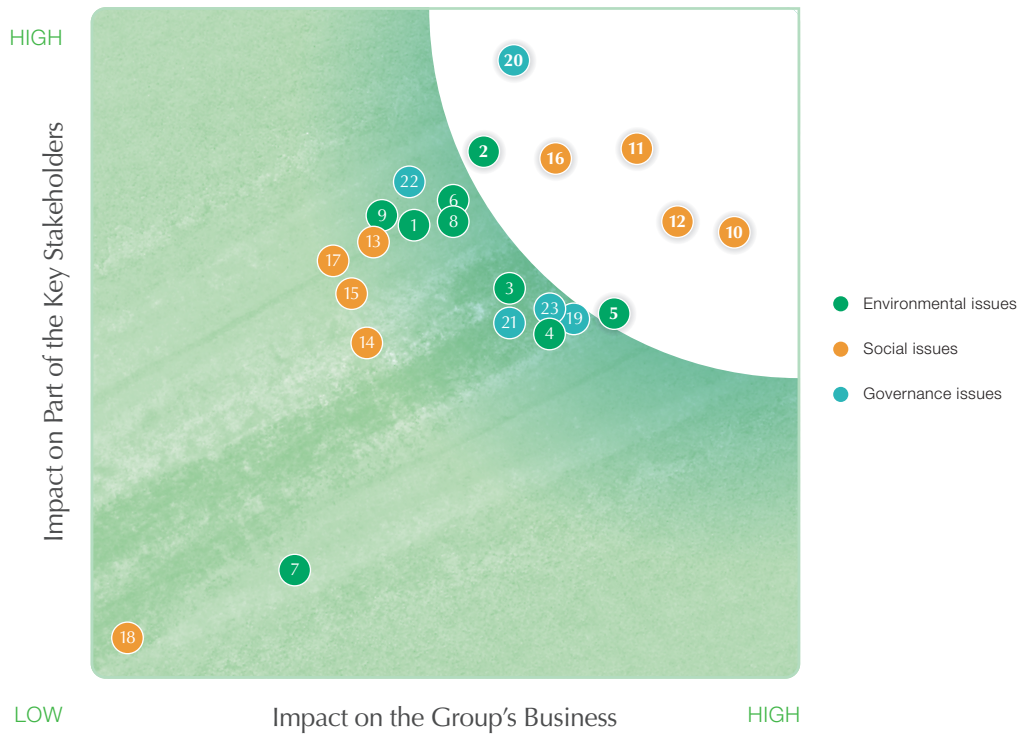
The Group conducts a comprehensive materiality assessment every year to clarify the issues of the Report that are of most concern to CGN New Energy's key stakeholders and to identify the information that needs to be highlighted in the Report. During the preparation period of the Report, the Group conducted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

The Group through an anonymous questionnaire survey method, widely collected and solicited opinions from part of the Group's key stakeholders. The survey collected a total of 554 valid questionnaires<sup>3</sup> from the Company's management, employees, shareholders and investors. Based on the feedback from stakeholders, the material issues of the 2018 ESG Report were finally determined.

<sup>3</sup> The external evaluation of this survey only involved part of key stakeholders of the Group. We will consider expanding the coverage of relevant survey groups in the future.

## 08 Stakeholder Engagement and Materiality Assessment

Matrix of CGN New Energy 2018 Materiality Assessment



Environmental issues	Social issues	Governance issues
1. Exhaust emission and management <b>2. Effluent discharge and management</b> 3. Solid waste disposal and management 4. Greenhouse gas emission and management <b>5. Energy use and efficiency</b> 6. Water use and efficiency 7. Packaging material use 8. Project related protection of ecological environment and natural resources 9. Project environmental impact assessment and related mitigation measures	<b>10. Employment and employee welfare</b> <b>11. Occupational health and safety of employees</b> <b>12. Career development and training for employees</b> 13. Labor standards 14. Supply chain management 15. Service quality assurance <b>16. Employee benefits and promotion mechanism</b> 17. Compliance with labor legislation 18. Community investment and participation	19. Anti-corruption <b>20. Financial performance and investor interests</b> 21. Anti-improper competition 22. Corporate information disclosure 23. Social and economic compliance

Through the comprehensive analysis of the data and information collected in the survey, CGN New Energy obtained the survey results of material issues as listed in the above matrix and identified 7 material issues (i.e. items 2, 5, 10, 11, 12, 16, and 20 as shown in the above table) that relevant stakeholders are most concerned about. The Report will focus on these important issues and address the needs of stakeholders for information.

## 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.

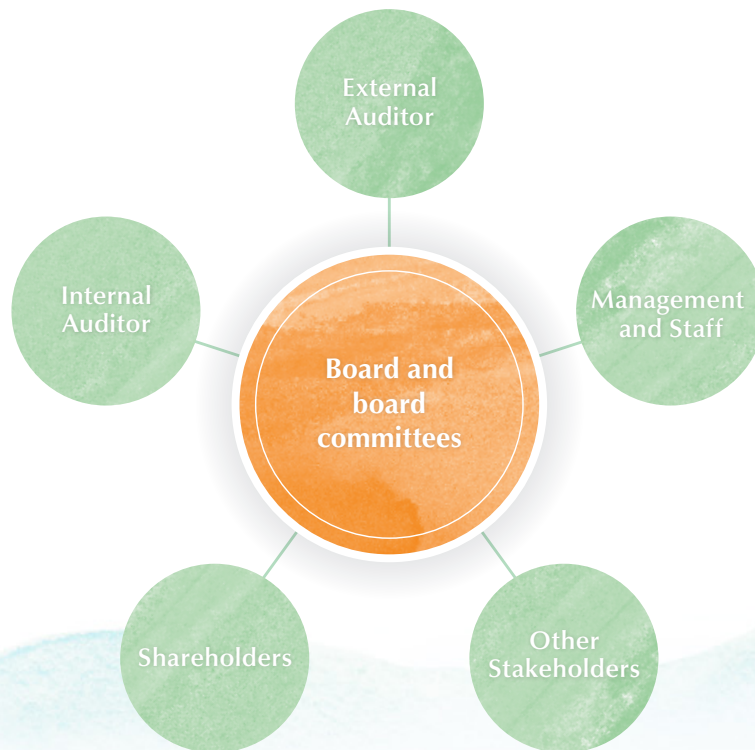
### GOVERNANCE STRUCTURE

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 been 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.

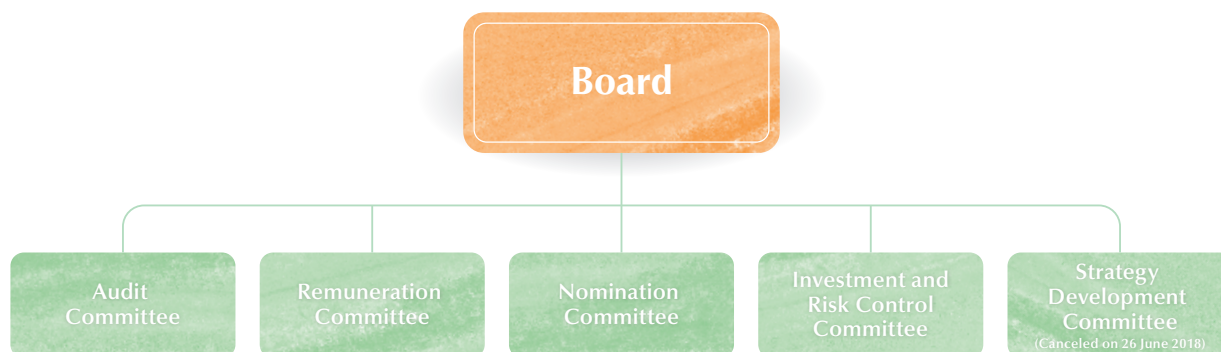
As the supervisor of the Company, the Board is responsible for formulating and approving policy matters, improving strategic guidelines, maintaining risk management and internal control systems, and supervising the performance and professional development of senior management. As of the end of the Reporting Period, the board committees of the Company include the Audit Committee, Remuneration Committee, Nomination Committee and Investment and Risk Management Committee. The Strategy Development Committee was canceled on 26 June 2018. 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.

Corporate governance structure of CGN New Energy:



## 09 Corporate Governance

Governance structure of CGN New Energy:



The Report basically presents the corporate governance system and work of CGN New Energy in 2018. For details, please refer to the “Corporate Governance Report” contained in our *Annual Report 2018*.

## ECONOMIC RESPONSIBILITY

### Investors

During the Reporting Period, the 2017 dividend distribution plan of the Company, based on 4,290,824,000 shares, the total share capital of the Company at the end of 2017 was passed in the Annual General Meeting held on 31 May 2018. The final dividend of 0.36 US cents per share (equivalent to 2.81 HK cents per share) was distributed to all shareholders. The dividend distribution plan was completed on 20 June 2018, with a final dividend distributed totaling US\$15.5 million (equivalent to HK\$120.7 million).

### Creditors

As stated by CGN New Energy in the announcement entitled *USD350,000,000 4.00 per cent. Bonds due 2018 Final Redemption at Maturity* dated 20 August 2018, according to the terms and conditions of the Bonds, unless previously redeemed, or purchased and canceled, the Bonds will be redeemed at their principal amount on 19 August 2018.

As 19 August 2018 was a Sunday, the Company has effected payment for the redemption of the Bonds in full (the “**Redemption**”) on 20 August 2018 (the “**Settlement Date**”) in accordance with the terms and conditions. The aggregate amount of consideration paid by the Company in relation to the Redemption on the Settlement Date was US\$357,000,000, which comprised of principal amount of US\$350,000,000 and interest coupon amount of US\$7,000,000 for the period from 19 February 2018 to 19 August 2018.

In the future, the Company will continue to consider market policy changes, facilitate the expansion of the Company’s asset portfolio, give full play to the advantages of the “headquarters financing” mode, build a diversified financing platform on the basis of traditional bank financing, constantly explore a variety of capital market financing tools, constantly optimize the Company’s capital structure and debt structure, in order to lay a solid foundation for the sustainable development of the Company.

## 09 Corporate Governance

### ANTI-CORRUPTION

CGN New Energy strictly complies with the relevant laws and regulations on anti-corruption in the operating regions, including 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. Concurrently, employees are required to report in accordance with the regulations of the relevant policies when they receive gifts and gift money and must obtain approval from the Supervision Department in order to uphold integrity of the employees of the Group and strengthen the compliance of relevant policies and disciplines and eliminate the occurrence of extortion and money laundering with resolve.

In the meantime, the Group developed the *Reporting 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. During the Reporting Period, there was no record of proceedings against the Group over corruption or non-compliance with relevant laws and regulations.

### 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, which allows employees can 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 by the specific reporting line and email and also can report to the Audit Committee through the reporting form. The Company will try its best to keep strict confidential on the identity of the employee who submitted the report.

### 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 seriously handle the said matter, 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 plan 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 supervision. During the Reporting Period, the Group's financial supervision work went 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 through improving the internal Internet behavior management system to regulate the online behavior of employees, so as to prevent employees from accessing websites with irregularities or potential safety hazards, and regularly install or update the internal system antivirus software; virus scanning was carried out on the network access port filter, which maintains the Group's internal computer use safety.



## 10 Green Operation

“Lucid waters and lush mountains are invaluable assets”. As a firm advocate and practitioner in the field of new energy, CGN New Energy continuously carries out environmental protection management from multiple aspects 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, as well as the continuous improvement of environmental management system, promote the green and sustainable development in China.

### GREEN MANAGEMENT SYSTEM

CGN New Energy has established a complete environmental management system to support and standardize 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 leadership group, which comprehensively leads the Group's environmental protection work. The Group's significant impact on 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 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 working content 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 in project daily operation
- Making decisions on short-term goals and long-term planning in environmental protection of the Group

Besides, we have set up a Safety and Quality Department in all regional branches and independent project companies to supervise and manage the environmental protection issues of each project. We also assigned EHS management personnel for the management and maintenance of environmental protection facilities. They will play their own roles 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 actualizes 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 and OHSAS 18001 Occupational Health and Safety Management System Certification. The Group requires all newly acquired or completed power generation projects to obtain the above two management system certification qualifications within two years after the acquisition or completion to strengthen the environmental and social compliance of the project operation.



## 10 Green Operation

### CASE SHARING: MODEL OF ENVIRONMENTALLY FRIENDLY CONSTRUCTION AND GREEN OPERATION – XIANGSHAN ZHUSHAN WIND FARM PROJECT IN ZHEJIANG

The project location of CGN New Energy Xiangshan Zhushan Wind Farm Project is on the ridge of Zhushan Mountain, which is at the junction of Tuzi Town and Xianxiang Town in Xiangshan County. It is located near the Xiangshan Port, with the Damu Sea to the east, Daxu Town to the west and Xianxiang Town to the north, facing the Zhoushan Islands across the sea. The project has a total installed capacity of 45,000 kW and 30 wind turbines with a capacity of 1,500 kW.

During the construction period of the wind farm, the 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 on dangerous sections to facilitate 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 promote the work of 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 uses the shotcrete method to repair bare slope and builds drains along the road in order to prevent the rain from influencing the slope and road. With practical action to fulfil the oath of “environmental protection priority”, the Group has determined to build the beautiful ecological wind farm with tourism value, which has a positive demonstration significance to the surrounding wind farms.



Greening the wind farm

Furthermore, after the completion of Xiangshan Zhushan Wind Farm Project, it not only improves the local electricity supply situation, but also drives the development of island tourism and improves the living standard of local communities and villagers.

# 10 Green Operation

## MONITORING AND MANAGEMENT MECHANISM FOR EMISSION AND DISCHARGE

CGN New Energy strictly complies with the relevant laws and regulations on emissions in the operating regions, including 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 some 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 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 formulation of strict management system, including the *Regulations of Desulfurization, Denitrification, and Dust Removal Operations*, the *Management System relating to the Start and Stop of Desulfurization Facilities*, the *Dust and Ash Removal Evaluation and Statistics Provisions* and other documents, for waste gas treatment facilities operation and maintenance, as well as set out the relevant personnel operating rules, we ensure the emissions meet with standard from the aspect of internal governance.

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 to the environmental protection department to minimize the impact on the environment.

Our operation in China has been strictly complied with the *Emission Standard of Air Pollutants for Coal-fired Power Plants* and we ensure that 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 reduce emission from electricity production continuously by measures such as improving technology and upgrading equipment.



## 10 Green Operation

Daily management of atmospheric pollutants:

- Install boilers that are following 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 systems are in normal operation and record the inspection results

Treatment methods of atmospheric pollutants:

- Flue gas from boilers is discharged at height after treatment in the flue gas precipitator system
- Magnesium oxide desulphurization device is used for desulphurization treatment of exhaust gas
- Meeting the NO<sub>2</sub> emission standard through low nitrogen burning and selective catalytic reduction (SCR) desulphurization

Monitoring methods of atmospheric pollutants:

- 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 projects' atmospheric pollutants:

NO <sub>x</sub>	1,501.02 tonnes
SO <sub>x</sub>	281.50 tonnes
Smoke and dust in exhaust gas	113.18 tonnes

On atmospheric pollutants and greenhouse gas emissions, we actively promoted the proportion of investment in clean and renewable energy projects (i.e., including 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 installed capacity.

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

Total greenhouse gas emissions	17,874,972.55 tonnes CO <sub>2</sub> eq
Greenhouse gas emissions per MWh of electricity generated	1.34 tonnes CO <sub>2</sub> eq, a reduction of 9.4% YoY

According to the Company's business characteristics, the Company's main greenhouse gas emissions during the Reporting Period were from fuel combustion during the operation of some projects. The Report focuses on the disclosure of the Group's greenhouse gas emissions of Scope 1 (direct emissions) during the Reporting Period, as the greenhouse gas emissions of Scope 2 (indirect emissions from energy sources) and Scope 3 (other indirect emissions) are much less than the greenhouse gas emissions Scope 1 of the Group. The Group will consider disclosing greenhouse gas emissions of Scope 2 and 3 in future reporting periods. In the future, we will further improve the production capacity structure and continue to optimize 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.



## 10 Green Operation

### CASE SHARING: ULTRA-LOW EMISSIONS PROMOTE HIGH-QUALITY HEAT SUPPLY – NANTONG COGENERATION PROJECT IN JIANGSU

CGN New Energy Nantong Project is one of the excellent demonstrations for Nantong Economic and Technological Development Zone (the first batch of state-level development zones) to attract investment. Its completion and operation will provide high-quality, reliable and clean energy for more than 100 domestic and foreign enterprises in the development zone. With outstanding green operations, the project was awarded the “Gold Award for Coal Power Project of the Year” at the Asian Power Awards 2012.



Nantong Cogeneration Project in Jiangsu under clear blue sky

In the past five years, Nantong Project has successfully achieved the upgrade and expansion of three projects. The third phase of the project is under expansion in 2018. The power generation and heating capacity will be expanded by another 40%, achieving a qualitative leap in production capacity. Nantong Project adhering to the vision of “become a world-class clean energy enterprise”, under the guidance of CGN New Energy, increasing environmental protection investment, in a timely manner to promote the desulfurization and denitrification, wet electric and other environmental protection work. The project achieved the national requirements of small thermoelectric ultra-low emissions with two years ahead of schedule, which transforms the image of small thermoelectric coal power plants from low power generation but high energy consumption and heavy pollution. The green development of Nantong Project contributes to the ecological civilization construction of Nantong Economic and Technological Development Zone. In the future, the Nantong Project will continue to strengthen the cooperation with Nantong Economic and Technological Development Zone, increase technological innovation, operate diligently and attentively, and make continuous contributions to local green development.

### 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.

## 10 Green Operation

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 neutralization 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	721,126.43 tonnes
COD	10.55 tonnes

### 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 on the projects' surrounding environment and people's health. The main wastes produced by the Group in the process of power production include fly ash, slag, waste oil, waste paint, and desulfurized gypsum, 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 waste disposal, shall register and deliver the waste to qualified third parties for further treatment before filing the five copies of the transit manifest.

All business units of the Group are committed to the principle of "repair and reuse, proper storage, full utilization, revenue generating and expenses cutting" to reduce waste production in the course of 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, centralized management and prioritized utilization", the Group carries out necessary repair work on components and parts disassembled at the production sites, so as to recover 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 on 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 summarizes 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	274,538.89 tonnes
Hazardous waste produced per MWh of electricity generated	0.021 tonnes

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

Total non-hazardous waste produced	79,092.39 tonnes
Non-hazardous waste produced per MWh of electricity generated	0.006 tonnes

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

Fly ash (pulverized fuel ash)	260,199.10 tonnes, a recycled rate of 94.8%
Desulfurized gypsum	16,040.06 tonnes, a recycled rate of 100%

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 emphasizes 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 Utilization

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 renovation projects and continued to promote the proportion of investment in clean and renewable energy projects. Relevant 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 change in consumption of major energy in projects was as follow:

Total energy consumption	26,705,949.25 MWh
Energy consumed per MWh of electricity generated	2.01 MWh

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 Company'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 standardization, serialization, and scale of wind power construction and operation and maintenance of the Group are at the leading stage of the industry. With the increasing proportion of the Group's investment in renewable energy in the future, the energy consumption of the Group is expected to decline further.

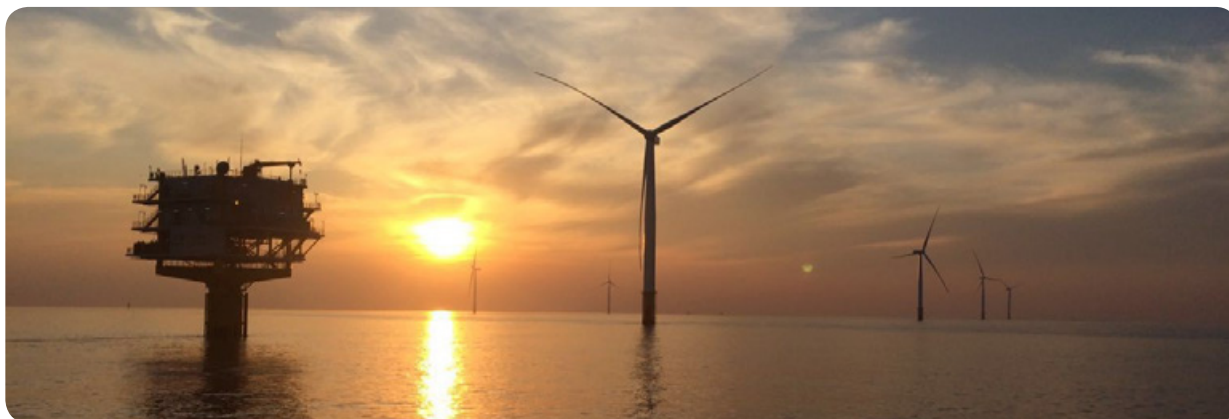
## 10 Green Operation

### CASE SHARING: THE FIRST DOMESTIC “DOUBLE-TEN” OFFSHORE WIND FARM PROJECT – RUDONG OFFSHORE WIND FARM PROJECT IN JIANGSU

The Rudong Offshore Wind Farm Demonstration Project entrusted by CGN New Energy is in the coastal area of Rudong County, Jiangsu Province. It is about 25 kilometers offshore and the seabed elevation is between -3.7 meters and -15.3 meters. It is the first offshore wind farm in China that meets the “double ten” standard (more than 10 kilometers offshore and more than 10 meters deep). The project was officially put into operation on 7 September 2016. In the project, a 110kV offshore booster station was built, and 38 wind turbines with a capacity of 4 MW were installed. The total installed capacity is about 150 MW, and the annual output in 2017 and 2018 is 441 million kWh and 518 million kWh respectively.



Rational use of offshore wind energy resources



Rudong Offshore Wind Farm at sunset

As the first offshore wind power project of CGN, Rudong Offshore Wind Farm Project has always adhered to the basic principles of “safety first, quality foremost, pursuing excellence”, and so far, has been in safe and stable operation for more than 900 days. In the early stage of operation, due to the lack of experience to follow in the operation and maintenance of offshore wind power in China, we had to “cross a river by groping the stones along the way”. The operation and maintenance team overcame all kinds of difficulties and explored a set of operation and maintenance model in line with the characteristics of offshore wind power, which accumulated rich production, operation, and maintenance experience for CGN’s future offshore wind power projects. The Rudong Offshore Wind Farm Project was rated as one of the top 10 wind farms in China’s wind power industry in 2017. The project always bases on safety first principle and firmly fulfills power generation task. The annual power generation target can be achieved ahead of schedule every year, and the annual hours of wind utilization rank the first among offshore wind power companies in Jiangsu Province.

## 10 Green Operation

### CASE SHARING: COMPREHENSIVE UTILIZATION OF URBAN BUILDING ROOFTOP – JIAXING XIUZHOU PHOTOVOLTAIC PROJECT IN ZHEJIANG

CGN New Energy's Jiaxing Xiuzhou Photovoltaic Project located at the rooftop of the government building of Xiuzhou District, Jiaxing, Zhejiang Province is built by the Group in Jiaxing, as the "smart distributed photovoltaic power generation" project with digitalization, high efficiency, safety and reliability. Distributed photovoltaic power generation projects make comprehensive use of the city's original building roof resources, and rationally utilize solar energy to provide power resources for the building itself and surrounding areas. This kind of project not only generates energy but also can decrease the indoor temperature of the building in summer under the shade of photovoltaic panels.



Jiaxing PV Project in the urban area

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 project;
- 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 carry out various power transactions as a whole;
- In terms of project construction, with improving project construction quality management as the benchmark, controlling construction cost as the goal, constantly improving 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.

# 10 Green Operation

## Water Resource Management

Enhance water use efficiency is a matter of concern of CGN New Energy in its day-to-day operation. 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, rainwater and conducting other water-saving measures.

To improve the power generation efficiency of solar 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 standard of cleaning components while reducing the consumption of additional water resources.

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

Total water consumption <sup>4</sup>	8,808,429.05 m <sup>3</sup>
The used amount of recycled water	14,230,875.00 m <sup>3</sup>
Water consumed per MWh of electricity generated	0.663 m <sup>3</sup>

Since 2013 and 2014, when the eastern and middle routes of the South-North Water Transfer Project were officially operated, the water scarcity situation in parts of 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 in Henan, Jiangsu, Shanghai and Hubei<sup>6</sup>, the Group did not face any water sourcing difficulties during the Reporting Period.

<sup>4</sup> Cooling water discharged into rivers or the natural environment, released water from hydro plant and recycled water are not counted as water consumption.

<sup>5</sup> Including coal-fired, cogen, steam and gas-fired generation projects.

<sup>6</sup> Jiangsu, Shanghai and Hubei are the regions with relatively abundant water resources in China.

# 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 employees' 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.

## STANDARDIZED EMPLOYMENT

CGN New Energy strictly complies with the relevant laws and regulations on employment and labor standards in the operating regions, including 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. The Group formulates and strictly implements various internal management policies on compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfare for employees, as well as the management policies related to the prevention of child and forced labor.

CGN New Energy implements the internal *Recruitment and Deployment Management Process*. According to the management system, all employee recruitments are conducted in accordance with fair, open, justice, competitive and merit-based principles. The basic recruitment requirements of the Group mainly include meeting the job qualification requirements, possessing commensurate educational background and specialty, seniority in the same or similar work positions, professional knowledge and skills, work experience, qualification and credentials, etc. in accordance with the various recruitment policies, such as the *Appointment of Technical Position Management Policy*, the *Provisional Measures of Campus Recruitment of Prospective Employee*, the *Procedures of Social Recruitment of CGN New Energy* and without prejudice to different gender, color, nationality, ethnicity, cultural background, religious belief, family background, and sexual orientation, and resolute resistance against any form of unfair treatment and discrimination.

In the recruitment of new employees, the Group will check the applicant's identity card, academic certificates, and other documents. Individuals under the age of 16, who are not allowed to be hired according to laws and regulations and who do not meet the conditions of employment after the medical examination by recognized hospitals will not be hired. The Group strictly prohibits any use of child and forced labor. At the same time, the Group also reviews the current recruitment policies on a regular basis, identifies potential risks actively during the review process, and designs appropriate response plans in advance.

During the probation period, the employee may propose to terminate the labor contract in accordance with the *Employee Handbook*. During the probation period, the Group may unilaterally terminate the labor contract if any employee is found to be in any of the following circumstances: non-satisfaction with the employment conditions, violation of laws and regulations, violation of the Company's rules and regulations and violation of labor discipline.

In addition, we conduct annual performance appraisals and assessments for all our employees and arrange salary adjustments and promotions according to the working ability, performance and other factors of each employee. The Group will demote or transfer the employee with poor appraisal results in succession. If such employee's further assessment is still not up to standard, the Group will negotiate with such employee to terminate his/her labor 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, and maternity leave, etc.
- Regular performance appraisal and assessment, and the comprehensive arrangement of salary adjustment and promotion
- Timely paid Insurance and Housing Fund, MPF and National Pension in accordance with relevant laws and regulations of China, Hong Kong and Korea respectively

CGN New Energy hopes to attract more potential talents while retaining outstanding employees including the management level through continuous improvement of the *Human Resource Management System*, so as to provide human resources guarantee for the sustainable development of the Group.

# 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	China	Hong Kong	Korea	Other countries and regions
Number of employees	1,703	55	151	8
Percentage ratio	88.8%	2.9%	7.9%	0.4%

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

Age group	Under 30	Between 30 and 50	Above 50
Number of employees	459	1,184	274
Percentage ratio	23.9%	61.8%	14.3%

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

Employment type	Full-time employee	Part-time employee
Number of employees	1,917	0
Percentage ratio	100.0%	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	1,521	396
Percentage ratio	79.3%	20.7%

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

Staff cost	US\$'000
Salaries and allowances	54,873
Retirement benefits scheme contribution, including directors' emoluments	12,926

In terms of expanding recruitment channels, we have established various recruitment models, such as online recruitment, personal recommendation, talent exchange fair, and campus seminar, to attract outstanding talents.



# 11 Caring for Employees

## OCCUPATIONAL HEALTH AND SAFETY

### Operational Risk Management

CGN New Energy strictly abides by the laws and regulations of employees' occupational health and safety in its operating regions, including 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. The Group formulates and strictly implements various internal management policies on preventing employees from occupational injuries.

As the largest business segment of CGN New Energy, electricity production and sales contribute most of the Company's revenue. The electricity production ways of the Group include solar power, wind power, gas fired, etc., which involve different processes and techniques of instrument operation. The performance assessment for the operational safety of each project has always been the top priority of the Company's inspection and acceptance 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 injuries and casualties and achieved the goal of safe production.

To consolidate 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 *Identification of Hazard Sources, Risk Assessment and Control System*, the *Potential Safety Risks Investigation and Treatment System*, the *Dangerous Items Management System* and the *Occupational Hygiene 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 safe working conditions.

During the Reporting Period, the status of OHS management in different project regions:

Project region	OHS management system establishment	OHS system certification	Number of accidents 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 accountability system where the responsibility of any 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 and coordinate all employees from up to general manager and down 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 and penalize those who violate the work 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 formal construction. The effectiveness of the measures, such as the integrity of the working equipment and the compliance of the front stand 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 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 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 learn.

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

<b>Stop</b>	Pause or stop for awhile before work, focusing on the task ahead
<b>Think</b>	Think about the task-related risks, whether the Life Red Lines of Production, Operation, and Maintenance has been implemented, and make a plan
<b>Act</b>	Start working as planned
<b>Review</b>	Check and review whether there are omissions after work



# 11 Caring for Employees

## Health and Safety Training

CGN New Energy not only continuously improves the risk management system but also organizes and provides a variety of occupational health and safety training 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 3-level (i.e. branch company, project company and post) safety education, and accept safety education test. All new production personnel must pass the test before entering 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, technical questions and answers, accident forecast and other on-site training and safety activities. It is the same that other related employees are required to complete a safe production knowledge test, to ensure their safety awareness level can meet the requirements of the Group.

In terms of improving the ability of employees to cope with emergencies, the Group organizes training on fire safety knowledge for employees every year. We require all employees involved in the training to be equipped with “four understandings 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 sand being able to deal with the accident; understanding the ways to escape and being able to escape. At the same time, the Company’s Safety and Quality Department regularly provides employees with training courses related to safety production laws and regulations, safety management systems and other systematic courses, 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 exercises and so on, to improve the safety awareness of all employees.

During the Reporting Period, various OHS training activities were organized 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

CGN New Energy attaches great importance to improving the professional skills of employees. The Group adheres to the talent concept of "make the best of one's talent and create a future together". Based on CGN's talent training management system and CGN New Energy's business characteristics, CGN New Energy regularly provides free and diversified professional skills training for its employees according to the job skill requirements of different energy power generation projects. The Group formulates and strictly implements various internal management policies to improve the professional skills of its employees.

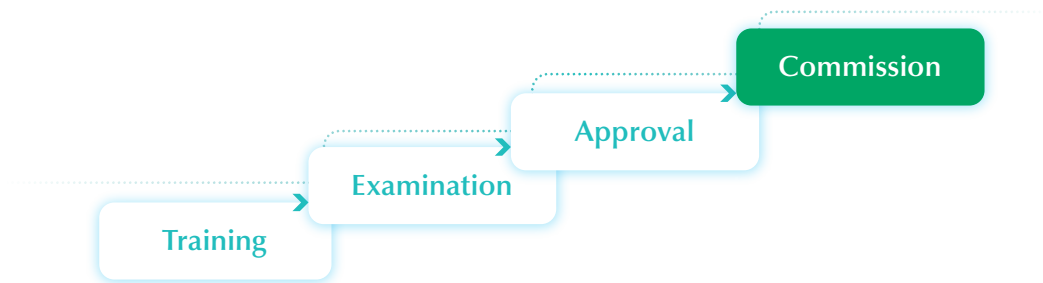
Relevant skills training aims at improving the daily work skills of relevant employees. The Group hopes that such training can improve the work efficiency of employees and enhance their professional skills, so that employees can create value for CGN New Energy as well as get opportunities to improve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

Management talent training:



# 11 Caring for Employees

Technician talent training:



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 organization and management system, training authorization system and training support system, so as to help employees master professional skills in an all-around way.

## CASE SHARING: CGN NEW ENERGY NEW EMPLOYEE TRAINING PHASE I IN 2018

The first phase of CGN New Energy's 2018 New Employee Training Program was successfully launched in Beijing on 8 January 2018. The new employee training is an independently designed and customized high-quality project, which is based on the standard curriculum of CGN's "Egret•Hatching Scheme" and according to CGN New Energy's own characteristic, considering from the Company's and employees' actual demand. The Group invited internal experienced part-time lecturer to teach the various practical professional course, including "We Are CGN Personnel", "To Achieve the Best Performance", "Introduction of Business in CGN New Energy", "Integrity Education" and so on, for facilitating new employee integration development.



Employee attended the new employee training seriously

## 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 specializing in non-nuclear clean energy, and worked together to meet challenges, for promoting the win-win development of new energy industry and making 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 on product liability in its operating regions, including 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. The Group formulates and strictly implements 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

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. Suppliers and contractors, as an important part of the quality assurance of the Company's operation process, play an important role in supporting our business development. We are committed to maintaining a good relationship of cooperation with our suppliers and contractors, and under the policy of "mutual benefit, common development, environmental protection, benefit the people", we have formulated and implemented relevant systems to standardize the performance of both sides and achieved the goal of harmonious development of mutual benefit and win-win.

During the Reporting Period, we worked with 2,293 suppliers and contractors from China, Hong Kong and Korea, mainly covering three types of suppliers and contractors, including fuel, engineering projects, and general equipment services. In order to standardize the procurement process, we have developed relevant work guidelines, agreements and contracts, and regularly carried out a comprehensive evaluation of the products and services of suppliers and contractors to ensure that they meet our strict standards. Our priority is to work with outstanding suppliers and contractors. On the contrary, we will consider discontinuing cooperation with suppliers with poor performance.

During the Reporting Period, the distribution of suppliers and contractors:

Country and region	China	Korea	Hong Kong	Other countries and regions
Quantity	1,705	226	0	5
Percentage ratio	88.0%	11.7%	0%	0.3%

In order to improve the environmental awareness and the awareness of occupational health and safety of our suppliers and contractors, we have signed the *Supplier (Outsourcing Project) Environmental and Safety Control Agreement* with each supplier and contractor to monitor their ESG performance, to reduce pollution and to avoid safety accidents in the production process. In the process of construction, we will standardize the production and operation behavior of employees of each construction unit in accordance with our *Standardized Management Manual for Engineering Construction (Safety Management)* and clarify the assessment rules and the handling procedure of all kinds of production safety violations and misconducts.

In addition, we also specially provide safety training and guidance for some suppliers to reduce potential risks in their operation process, so as to guarantee the long-term stable operation of the Group.



## 12 Quality Assurance

### INTELLECTUAL PROPERTY RIGHTS AND PRIVACY PROTECTION

The Group strictly implements the internal *Employee Handbook* and the *Code of Conduct for Staff*, and all CGN New Energy employees are responsible for protecting the Company's intellectual property rights, complying with all applicable laws and regulations, and respecting the intellectual property rights of other organizations or individuals.

In addition, we strictly manage clients' information and encrypt the business data. The clients' information shall be under the special management of specific personnel. Except for special cases approved by the Group, employees of 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, support long-term community investment and contribute to society through the operation of our projects.

At present, CGN New Energy's community investment focuses on community co-construction, poverty alleviation by education and industrial development. We hope that through our own operation and charitable donation in our project sites, we can help the people in surrounding areas and other people in need to improve their living conditions. At the same time, we can also bring hope to the next generations of the local communities and give an impetus of sustainable development in the communities in the future. The Group formulates and strictly implements 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 lags behind and they need more resources to maintain their livelihoods. We hope that people will be satisfied, and their lives will gradually improve. In the face of sudden disasters, we also timely provide aid through sending materials to relieve the pressure when people face with the disasters.

### CASE SHARING: SIYANG BEICHUAN FISHERY-SOLAR HYBRID PHOTOVOLTAIC POWER GENERATION PROJECT IN JIANGSU

A new power station with a total installed capacity of 31MW which was planned by CGN New Energy in Beichuan, Siyang, Jiangsu Province, is the Company's first fishery-solar hybrid photovoltaic power generation project. The project utilizes the abundant local water resources to develop fish farms under the solar photovoltaic panels, which combines power generation and breeding, and makes full use of land nature and planning to bring employment opportunities and income to local residents and improve their living standards. As of 31 December 2018, the Siyang Beichuan Project in Jiangsu Province has been connected to the grid and put into operation with a capacity of 23.5MW. It was expected that full-on-grid connection would be completed in 2019.



A photo of CGN New Energy's Fishery-Solar Hybrid Photovoltaic Project

## 13 Contribution to Society

### CASE SHARING: QAHAR RIGHT MIDDLE BANNER AND CHIFENG NEW GOLDEN ENERGY PHOTOVOLTAIC POVERTY-ALLEVIATION POWER GENERATION PROJECTS IN INNER MONGOLIA

In 2018, the Group actively responded to the national call, increased poverty alleviation input for fulfilling its social responsibility. The Group established two new photovoltaic power generation projects for poverty alleviation, namely, the Qahar Right Middle Banner and Chifeng New Golden Energy with the capacity of 30MW and 60MW respectively, in Inner Mongolia Autonomous Region. The projects help increase the income of poor households in the areas.

The Qahar Right Middle Banner 30MW photovoltaic power station is in Qahar Right Middle Banner, Ulanqab City, Inner Mongolia. There are nineteen 1.6MWp power generating units in the photovoltaic field, and one 35kV outgoing line connects to the 220kV substation in Yanhai, and a new 35kV switching station was built in the project. The project has helped 1,200 households with no working ability (including the disabled) to set up poverty registration cards, and each household can increase their income by more than RMB3,000 per year, which will last for 20 years.



Aerial view of Qahar Right Middle Banner 30MW Photovoltaic Power Station

As a photovoltaic poverty alleviation project, CGN New Energy provides a strong guarantee for the targeted poverty alleviation work of the local government. Meanwhile, during the project construction process, it vigorously promotes the implementation of the targeted poverty alleviation policy of Inner Mongolia Autonomous Region, makes full use of the local labor force at the initial stage of construction and during the operation, drives the surrounding farmers and herdsman out of poverty, and establishes a good image of CGN New Energy as a responsible, competent and reliable clean energy enterprise.

## 13 Contribution to Society

### COMMUNITY CO-CONSTRUCTION

CGN New Energy development depends on technological progress. Therefore, we believe that knowledge is the greatest wealth, and we hope to help deliver knowledge to the surrounding communities. We are committed to bringing more resources to local schools. We organize school visits by volunteers to impart knowledge, so that the next generation can enjoy equal and adequate educational resources. In turn, to improve their future life and further contribute to society. CGN New Energy has carried out charity activities in Hope Primary Schools in Lancang, Pu'er; Mouding, Chuxiong; Huaning, Yuxi; Menghai, Xishuangbanna and other places, which have been widely recognized by the local governments and the public.

### CASE SHARING: DONATED RMB100,000 TO MOUDING FOR EDUCATIONAL DEVELOPMENT

On 20 July 2018, CGN New Energy donated RMB100,000 to CGN's Samachang Hope Primary School in Mouding County to improve the school's operating conditions. The Group, as one of the first leading central state-owned enterprises for facilitating the development of Yunnan, has made outstanding contributions to Mouding's economic construction and social public welfare programs. CGN New Energy has always attached great importance to education and passion for Mouding and has funded Mouding's education infrastructure construction for many times to effectively help solve the urgent needs of school development and construction.



Donation ceremony to Mouding County

We also offer timely assistance to communities in case of emergencies, such as participating in firefighting and disaster relief operations. We also actively promote the publicity of environmental protection and look forward to working with the communities to create a more pleasant living environment. The Company's efforts have been recognized by the local communities.

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

Money contributed to community or charity issues

RMB1,974,652.66

# 14 Comprehensive Performance

The statistical and calculation methodology used in the Report are appropriately indicated. Past data and information of some indicators have been sorted out and presented. In 2018, the Group systematically counted and sorted out the environmental and social data of electricity production and steam projects under the Group. The indicators of data collection and project collection scope for 2018 were expanded from 2016 and 2017; the expanded data contain relevant data from solar, wind and hydro sectors, therefore, data of some indicators for 2018 were changed from previous years. The "N/A" in each list indicates that the relevant data are not disclosed or not counted in the year and that the data are not applicable for comparison. Unless otherwise stated, the data provided in this section are the aggregate data of the corresponding year or the data of December 31 in the corresponding year.

## CORPORATE GOVERNANCE

### Economy and Governance

Economic performance:

Indicator	2018	2017	2016
Revenue (US\$'000)	1,358,487	1,108,560	1,074,448
Operating profit (US\$'000)	199,181	166,230	177,397
Net assets (US\$'000)	954,284	960,375	811,836
Earnings per share <sup>7</sup> (US cents)	2.06	1.44	1.85
Debt ratio <sup>8</sup>	76.94%	74.33%	76.80%

Preventing bribery and anti-corruption:

Indicator	2018	2017	2016
Number of cases involved bribery, extortion, fraud and money laundering	0	0	0

<sup>7</sup> Refers to the earnings per share of the Company, basic and diluted.

<sup>8</sup> Refers to the ratio of consolidated liabilities to consolidated assets of the Company.

# 14 Comprehensive Performance

## QUALITY ASSURANCE

### Product and Service Quality

Operational performance:

Indicator	2018	2017	2016
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 region of suppliers:

Indicator	2018 <sup>9</sup>	2017	2016
Total number of suppliers	1,936	1,500	1,200
China	1,705	N/A	N/A
Korea	226	N/A	N/A
Hong Kong	–	N/A	N/A
Other countries and regions	5	N/A	N/A

<sup>9</sup> The number of suppliers in 2018 is consistent with the collection scope of other data in 2018 but does not include the data of the Group's Jiyuan Juli, Lankao Lanyang, Laoling Tiejing Phase II, Laoling Tiejing, Jiaxing PV and Hefei Hi-tech Sino-trans Projects. The Group will consider further inclusion in the future.

# 14 Comprehensive Performance

## GREEN OPERATION

### Emissions and Discharges

Atmospheric pollutant emissions:

Indicator	2018	2017	2016
NO <sub>x</sub> (tonne)	1,501.02	1,819.00	2,342.11
SO <sub>x</sub> (tonne)	281.50	618.00	2,150.18
Smoke and dust in exhaust gas (tonne)	113.18	143.00	268.32

Greenhouse gas emissions:

Indicator	2018	2017	2016
Total greenhouse gas emissions <sup>10</sup> (tonne CO <sub>2</sub> eq)	17,874,972.55	11,021,179.00	15,798,268.08
CO <sub>2</sub> (tonne)	4,963,335.87	4,646,245.00	4,755,100.00
CH <sub>4</sub> (tonne)	1,008.26	850.00	976.16
N <sub>2</sub> O (tonne)	1,492.48	1,265.00	1,448.04
SF <sub>6</sub> (tonne)	531.40	461.00	452.43
Reduction of Trees Emission <sup>11</sup> (tonne CO <sub>2</sub> eq)	75.44	N/A	N/A
Greenhouse gas emissions in total per MWh of electricity generated (tonne CO <sub>2</sub> eq)	1.34	1.48	1.33

Amount of non-hazardous waste generated:

Indicator	2018	2017	2016
Total non-hazardous waste produced (tonne)	79,092.39	90,748.79	70,605.63
Boiler slag (tonne)	62,520.51	70,463.00	70,425.35
Desulfurized gypsum <sup>12</sup> (tonne)	16,040.60	20,203.00	N/A
General waste/Domestic waste (tonne)	261.82	69.00	175.69
Waste paper (tonne)	1.40	0.50	0.66
Iron scrap (tonne)	268.06	13.29	3.93
Non-hazardous waste produced per MWh of electricity generated (tonne)	0.006	0.008	0.006

<sup>10</sup> The Group's greenhouse gas list includes carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and sulfur hexafluoride (SF<sub>6</sub>). Its total greenhouse gas emissions data is presented in carbon dioxide equivalent and is based on the global warming potential values of the IPCC Fifth Assessment Report. The Group has adopted the "operational control" approach for defining its organizational boundary for the purposes of greenhouse gas statistics and reporting.

<sup>11</sup> The tree emission reduction data are calculated based on the conversion factors provided by the Hong Kong Environmental Protection Department and the Hong Kong Electrical and Mechanical Services Department.

<sup>12</sup> The produced amount and recycled amount of desulfurized gypsum in 2018 are consistent with the collection scope of other data in 2018, but the data of Nantong Project and Shanghai Jingqiao Projects of the Group are not included. The Group will consider further inclusion in the future.

## 14 Comprehensive Performance

Amount of hazardous waste generated:

Indicator	2018	2017	2016
Total hazardous waste produced (tonne)	274,538.89	254,358.30	278,277.26
Waste battery (tonne)	2.39	16.00	N/A
Waste oil (tonne)	178.21	577.00	95.46
Waste paint (tonne)	0.24	0.30	0.63
Waste insulation materials (tonne)	10.87	13.00	N/A
Fly ash (pulverized fuel ash) <sup>13</sup> (tonne)	274,347.18	253,752.00	278,181.17
Hazardous waste produced per MWh of electricity generated (tonne)	0.021	0.023	0.024

Wastewater discharge:

Indicator	2018	2017	2016
Wastewater (tonne)	721,126.43	455,752.00	N/A
Wastewater discharged per MWh of electricity generated (tonne)	0.054	0.042	N/A
Chemical oxygen demand (COD) (tonne)	10.55	14.00	N/A
COD per GWh of electricity generated (tonne)	0.00079	0.00129	N/A

Compliance of emission and discharge:

Indicator	2018	2017	2016
Number of cases involving illegal discharge of pollutants into the environment	0	0	0

<sup>13</sup> The produced amount and recycled amount of fly ash in 2018 are consistent with the collection scope of other data in 2018, but the data of Jiangsu Haian and Shanghai Jingqiao Projects of the Group are not included.

# 14 Comprehensive Performance

## Use of Energy and Resources

Energy consumption<sup>14</sup>:

Indicator	2018	2017	2016
Total energy consumption (MWh)	26,705,949.25	N/A	N/A
Coal (MWh)	11,802,082.24	11,924,750.03	8,659,883.58
Coal gas (MWh)	21.86	N/A	86.00
Natural gas (MWh)	14,870,233.30	N/A	N/A
Gasoline (MWh)	1,139.87	N/A	N/A
Diesel (MWh)	2,184.37	11,908,538.81	N/A
Fuel oil (MWh)	3,596.84	6,546.48	18,094.46
Purchased electricity (MWh)	26,690.77	N/A	271.61
Energy consumed per MWh of electricity generated <sup>15</sup> (MWh)	2.01	N/A	N/A

Water consumption :

Indicator	2018	2017	2016
Total water consumption <sup>16</sup> (m <sup>3</sup> )	8,808,429.05	643,063.00	7,582,920.00
Municipal water (m <sup>3</sup> )	919,500.00	N/A	N/A
Surface water (m <sup>3</sup> )	7,884,356.00	N/A	N/A
Ground water (m <sup>3</sup> )	4,573.05	N/A	N/A
Recycled water (m <sup>3</sup> )	14,230,875.00	N/A	N/A
Water consumed per MWh of electricity generated (m <sup>3</sup> )	0.663	1.050	0.641

<sup>14</sup> Energy consumption data was based on the amount of purchased electricity and fuels consumed and the relevant conversion factors provided by the International Energy Agency.

<sup>15</sup> The total energy consumption range calculated in 2016 and 2017 is different from that in 2018, therefore, the energy consumption per megawatt hour of electricity generated is not listed.

<sup>16</sup> Cooling water discharged into rivers or the natural environment, released water from hydro plant and recycled water are not counted as water consumption.

# 14 Comprehensive Performance

## Mitigating Impact on Natural Environment

Recycled amount of wastes during operational process:

Indicator	2018	2017	2016
Fly ash (pulverized fuel ash) (tonne)	260,199.10	252,241.00	N/A
Desulfurized gypsum (tonne)	16,040.06	20,203.00	N/A
Paper (tonne)	2.19	N/A	N/A

Environmental conservation:

Indicator	2018	2017	2016
Special funds for environmental protection invested by the PRC project	RMB18,870,248.34	N/A	N/A
Number of trees held as high as 5 meters or above	3,280	N/A	N/A

Compliance of environmental protection:

Indicator	2018	2017	2016
Number of cases involving damage to the natural environment	0	0	0



# 14 Comprehensive Performance

## CARING FOR EMPLOYEES

### Employment

Cost of employee welfare:

Indicator	2018 US\$'000	2017 US\$'000	2016 US\$'000
Salaries and allowances	54,873	61,760	55,855
Retirement benefits scheme contributions, including directors' emoluments	12,926	14,629	12,756 <sup>17</sup>

Employee composition:

Indicator	2018	2017	2016
<b>By gender<sup>18</sup></b>			
Male employees	1,521	44	42
Female employees	396	31	26
<b>By age group<sup>19</sup></b>			
Age under 30	459	5	4
Age between 30 and 50	1,184	43	42
Age above 50	274	27	22
<b>By employment type:</b>			
Full-time	1,917	1,925	1,765
Part-time	–	–	–
<b>By resident working region:</b>			
China	1,703	1,713	1,571
Korea	151	137	126
Hong Kong	55	75	68
Other countries and regions	8	–	–

<sup>17</sup> The amount of retirement benefits scheme contributions has excluded directors.

<sup>18</sup> The data for 2016 and 2017 concerning the gender division of employees only include Hong Kong.

<sup>19</sup> The data for 2016 and 2017 concerning the age group division of employees only include Hong Kong.

# 14 Comprehensive Performance

Employee turnover:

Indicator	2018 <sup>20</sup>	2017 <sup>21</sup>	2016
<b>By gender</b>			
Male employees	6.35%	13.73%	N/A
Female employees	10.83%	6.06%	N/A
<b>By age group</b>			
Age under 30	7.93%	16.67%	N/A
Age between 30 and 50	6.73%	12.24%	N/A
Age above 50	6.85%	6.90%	N/A
<b>By resident working region:</b>			
China	7.00%	N/A	2.68%
Hong Kong	N/A	N/A	18.84%

Remuneration:

Indicator	2018	2017	2016
<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

## Occupational Health and Safety

Employees' health and safety:

Indicator	2018	2017	2016
Number of work-related fatalities	0	0	0
Number of reportable injuries <sup>22</sup>	1	0	0
Injury rate (per 200,000 hours worked) <sup>23</sup>	0.16	N/A	N/A
Severe Injury rate (per 200,000 hours worked)	25.43	N/A	N/A

<sup>20</sup> The data for 2018 concerning the gender, age group and resident working region division of employees only include China.

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

<sup>22</sup> Representing inability of employees to work normally due to work-related accidents.

<sup>23</sup> Calculated based on the number of reportable injuries per 200,000 hours worked (i.e. 100 employees with 40 working hours per week and 50 working weeks per year).

# 14 Comprehensive Performance

## Development and Training

Employee training :

Indicator	2018	2017	2016
<b>Percentage of employees who received vocational development training<sup>24</sup></b>			
Male employees	34.39%	18.18%	10.60%
Female employees	30.30%	35.48%	30.40%
Senior employees	100.00%	45.33%	50.00%
Middle-level employees	100.00%	29.52%	20.90%
General employees	66.67%	15.77%	8.00%
<b>Average hours of vocational development training received per employee<sup>25</sup></b>			
Male employees (hour)	28.32	8.63	4.23
Female employees (hour)	22.12	10.86	5.09
Senior employees (hour)	40.00	20.00	10.63
Middle-level employees (hour)	15.00	8.82	7.03
General employees (hour)	13.65	11.25	0.54 <sup>26</sup>

## CONTRIBUTION TO SOCIETY

### Community Investment

Public charity:

Indicator	2018	2017	2016
Money contributed to community/charity issues <sup>27</sup>	RMB1,974,652.66	RMB200,000.00	RMB235,256.13

<sup>24</sup> The data for 2016 and 2017 on the percentage of employees receiving vocational development training only include Hong Kong; the data scope of the percentage of employees receiving vocational development training by employee level in 2018 is Hong Kong office.

<sup>25</sup> The data for 2016 and 2017 on the average hours of employees receiving vocational development training per employee only include Hong Kong; the data scope of the average hours of employees receiving vocational development training per employee by employee level in 2018 is Hong Kong office.

<sup>26</sup> This data is the number of training hours for technician employees, excluding other general employees.

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

## 15 Prospects in 2019

In retrospect of 2018, the international situation was full of uncertainties and the international energy landscape has been undergoing significant development and changes. Environmental awareness has gradually gained popular support, accelerating the global energy structure towards low-carbon development, 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 deepen 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 formed a development pattern of comprehensive development, wind power generation and professional services. The standardization, serialization, scale level of the Group's wind power construction and operation and maintenance are in the industry-leading position. Our solar power station and other new energy investment, construction, and operation and maintenance as well as solar energy-related technology research and development, have also 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", having the vision of "to become the outstanding contributor of global non-nuclear clean energy" in mind, 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 on the information and data in respect of sustainable development as disclosed in the 2018 Environmental, Social and Governance Report (the "**ESG Report**") of CGN New Energy.

## I. RESPONSIBILITIES OF CGN NEW ENERGY

CGN New Energy is responsible for the preparation and presentation of the ESG Report in accordance with the Environmental, Social and Governance Reporting Guide (the "**ESG Reporting Guide**") under Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited published by The Stock Exchange of Hong Kong Limited (the "**Stock Exchange**"), and is responsible for the implementation of relevant internal control procedures to ensure that the contents of the ESG Report are free from material misstatement due to fraud or error.

## II. RESPONSIBILITIES OF ASSURANCE PROVIDER

CECEPAC (HK) is responsible for the issuance of an independent assurance statement to the board of directors of CGN New Energy. This Independent Assurance Statement applies solely to related matters within the scope as specified under the ESG Report of CGN New Energy to form a conclusion on the assurance work and not for other purposes.

CECEPAC (HK) ensures that personnel involved in performing this assurance work are fit and competent as screening was based on individual qualification, training and experience. CECEPAC (HK) guarantees that the personnel involved in the assurance have the capability to conduct the assurance engagement. All verified results were reviewed internally by senior staff members to secure the methodologies we used were stringent and transparent.

## III. TYPES AND STANDARDS OF ASSURANCE

CECEPAC (HK) conducted the assurance on the ESG Report of CGN New Energy pursuant to AA1000 Assurance Standard (2008) ("**AA1000AS**"). The degree and type of assurance are Type 2 Moderate Level of Assurance of AA1000AS.

CECEPAC (HK) assessed the extent of compliance of three AA1000 Principles (2008) (Inclusivity, Materiality and Responsiveness) by CGN New Energy. AA1000AS also requires an assessment of the quality of information on sustainable development performance in the report. In this regard, CECEPAC (HK) adopted the reporting standards (Materiality, Quantitative, Balance and Consistency) of the ESG Reporting Guide issued by the Stock Exchange for assessment.



# 16 Independent Assurance Statement

## IV. SCOPE OF ASSURANCE

- The organisational scope of the assurance is limited to the information and data relating to CGN New Energy and its subsidiaries as covered by the ESG Report, excluding the information and data provided by suppliers and contractors of CGN New Energy and the other third parties;
- CGN New Energy and CECEPAC (HK) unanimously agreed and selected three categories of specific performance information in the ESG Report for assurance. The selected information is as follows:
  - Energy use and efficiency
  - Employment and employee welfare
  - Financial performance and investor interests
- The assurance work performed by CECEPAC (HK) is limited to the information disclosed for the period from 1 January 2018 to 31 December 2018. Information that falls outside this time frame or any other information included in the ESG Report is outside the scope of our assurance work. Therefore, we do not express any conclusion on such information;
- The scope of assurance is based on and is confined to the information provided by CGN New Energy. Any queries regarding the contents or related matters as set out in this Independent Assurance Statement should be addressed to CGN New Energy.

## V. METHODOLOGIES ON ASSURANCE

CECEPAC (HK) only commenced the assurance work for both the Tong Ce project in Shanghai and the Ninghai Yishi project in Zhejiang of CGN New Energy. The assurance work included:

- Assess the appropriateness of stakeholder engagement process of CGN New Energy;
- Interview with employees involved with sustainability management, report preparation and provision of related information;
- Review whether the preparation and management processes of the ESG Report are in compliance with the principles of Inclusivity, Materiality and Responsiveness under the AA1000AS;
- Conduct sampling of supportive evidence pertaining to specific performance information;
- Assess whether the ESG Report is in compliance with the ESG Reporting Guide;
- Other procedures we deemed necessary.

The assurance work conducted and conclusion thereon are based on the relevant information provided by CGN New Energy to CECEPAC (HK), where CGN New Energy ensures that such information is complete and accurate.



# 16 Independent Assurance Statement

## VI. LIMITATIONS

The absence of internationally recognised and commonly used standards for assessment and measurement of non-financial information allows for different but acceptable measures and measurement technique, which may affect comparability with other institutions.

## VII. CONCLUSIONS

Regarding the AA1000 Accountability Principles of Inclusivity, Materiality and Responsiveness, and the ESG Reporting Guide published by the Stock Exchange. Our conclusions are as follows:

### **Inclusivity**

CGN New Energy has identified key stakeholders and understood the appeals and opinions of such key stakeholders through different forms of communication channels. In our professional opinion, CGN New Energy adheres to the principle of Inclusivity.

### **Materiality**

CGN New Energy has conducted a materiality analysis for its ESG Report, collected opinions from the stakeholders, identified material issues through appropriate methods, and it demonstrated the importance of issues in sequence in its ESG Report. In our professional opinion, CGN New Energy adheres to the principle of Materiality.

### **Responsiveness**

CGN New Energy has established relevant channels for its key stakeholders etc. in order to gather their concerns, and has developed relevant policies to support discussion, resolution, tracking and improvement of concerned matters to the key stakeholders. In our professional opinion, CGN New Energy adheres to the principle of Responsiveness.

### **ESG Reporting Guide of 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 the process of analysing material issues and its materiality matrix; has described the impact of its business objectively; has carried out statistics and disclosure work on the data relating to the environmental and social aspects; and showcased data for three consecutive years. Our view in relation to enhancement of the ESG Report was adopted by CGN New Energy prior to the issuance of this assurance statement.



# 16 Independent Assurance Statement

## Specific Performance Information

Based on the assurance procedures which CECEPAC (HK) has performed and the evidence obtained, nothing has come to our attention that causes us to believe that the disclosure of the three selected key performance indicators in the ESG Report for the time frame limited to 1 January 2018 to 31 December 2018 is unreliable or inaccurate in all material respects.

## VIII. RECOMMENDATIONS

We recommend that CGN New Energy considers further strengthening the following work in the future:

- Further enhance the management capability of data collection system, with regular analysis, communication and feedback to be made through the establishment of data collection and reporting procedures in order to strengthen the traceability and accuracy of data in the future;
- Review and evaluate the feedback and response mechanism for external stakeholders, and develop continuous communication channels to expand the coverage of participating groups in the process of identifying material issues.

## IX. INDEPENDENCE AND COMPETENCE

CECEPAC (HK) was not involved in collecting and calculating data as set out in the ESG Report or compiling the ESG Report. The assurance work of CECEPAC (HK) is independent from CGN New Energy. CECEPAC (HK) has no other connection with CGN New Energy beyond the contractual agreement for providing this assurance engagement.



**CECEPAC (HK) ADVISORY  
COMPANY LIMITED**  
中國節能鐵信(香港)諮詢有限公司



**AA1000**  
Licensed Assurance Provider  
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July 2019  
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. Environmental</b>		
<b>Aspect A1:</b>	<b>Emissions</b>	
China	Environmental Protection Law of the People's Republic of China Atmospheric Pollution Prevention and Control Law of the People's Republic of China Environmental Protection Tax Law of the People's Republic of China Regulation on the Implementation of the Environmental Protection Tax Law of the People's Republic of China Law of the People's Republic of China on Prevention and Control of Water Pollution Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes	During the Reporting Period, the Group did not violate any laws and regulations related to atmospheric emissions, emissions of wastewater and wastes and ecological and environmental protection listed in "Appendix I" of the Report.
Hong Kong	Water Pollution Control Ordinance Waste Disposal Ordinance	
Korea	Clean Air Conservation Act Noise and Vibration Control Act Water Quality and Aquatic Ecosystem Conservation Act Wastes Control Act Act on the Promotion of Saving and Recycling of Resources Environmental Impact Assessment Act	

<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>	
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 Employment 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 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 opportunity, 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 Sex Discrimination Ordinance Disability Discrimination Ordinance Race Discrimination Ordinance Family Status Discrimination 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>	
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>Labor Standards</b>	
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 labor 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>	
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 Standardization Law of the People's Republic of China Regulations for the Implementation of the Standardization 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 safety, clients' privacy protection and others matters of the supplied electricity listed in "Appendix I" of the Report.
Korea	Electric Utility Act	
<b>Aspect B7:</b>	<b>Anti-corruption</b>	
China	Criminal 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		Locations of Disclosure or Remarks
<b>A. Environmental</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	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		Locations of Disclosure or Remarks
<b>Aspect A2:</b>	<b>Use of Resources</b>	
General Disclosure	Policies on efficient use of resources including energy, water and other raw materials.	Green Operation – Use of Energy and Resources; Due to the nature of the Group's business, matters relating to packaging materials are not applicable to the Group.
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, 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.	Due to the nature of the Group's business, this KPI is not applicable to the Group.
<b>Aspect A3:</b>	<b>The Environment and Natural Resources</b>	
General Disclosure	Policies on minimizing 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 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		Locations 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 – Standardized Employment
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	Caring for Employees – Standardized Employment; Comprehensive Performance
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Comprehensive Performance
<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

## Appendix II Stock Exchange ESG Reporting Guide Content Index

Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
<b>Aspect B3:</b>	<b>Development and Training</b>	
General Disclosure	<p>Policies on improving employees' knowledge and skills for discharging duties at work.</p> <p><i>Note: Training refers to vocational training. It may include internal and external courses paid by the employer.</i></p> <p>Description of training activities</p>	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	<p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</p> <p>relating to preventing child and forced labour.</p>	Caring for Employees – Standardized Employment
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Caring for Employees – Standardized Employment
KPI B4.2	Description of steps taken to eliminate child and forced labour practices when discovered.	Caring for Employees – Standardized Employment
<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

## Appendix II Stock Exchange ESG Reporting Guide Content Index

Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
<b>Aspect B6:</b>	<b>Product Responsibility</b>	
General Disclosure	<p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</p> <p>relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.</p>	Quality Assurance; Due to the nature of the Group's business, health, advertising, labelling and remedial matters relating to the supplied electricity are not applicable to the Group.
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Due to the nature of the Group's business, this KPI is not applicable to the Group.
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.	Due to the nature of the Group's business, this KPI is not applicable to the Group.
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

## Appendix II Stock Exchange ESG Reporting Guide Content Index

Subject Areas, Aspects, General Disclosures and KPIs		Locations 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 takes into consideration 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 areas.	Contribution to Society – Poverty-Alleviation by Industrial Development, Community Co-Construction



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新能源  
New Energy

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