

一次把事情做好

中國廣核電力股份有限公司 CGN Power Co., Ltd.



March 2020



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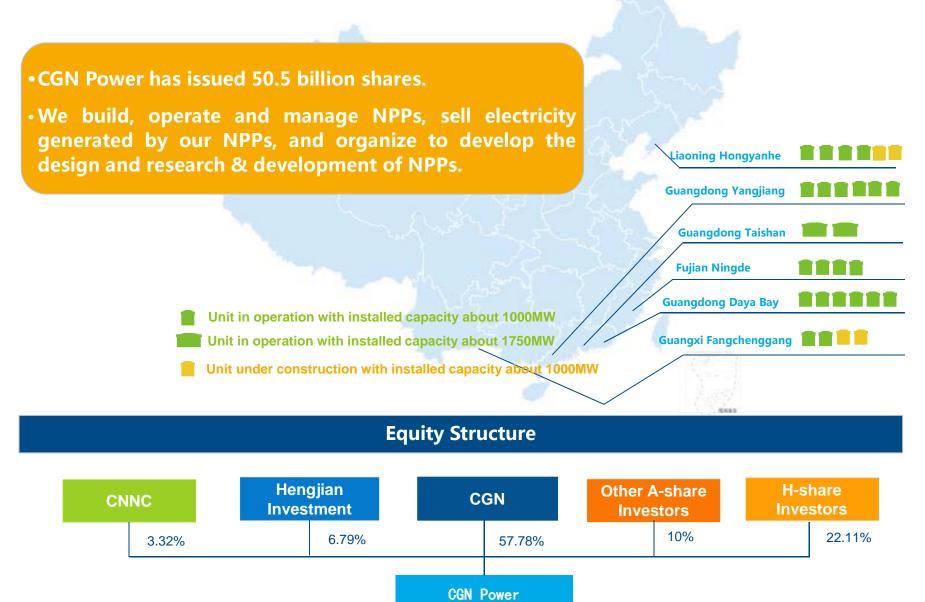
# Part I Development Strategy





# **Corporate Introduction**

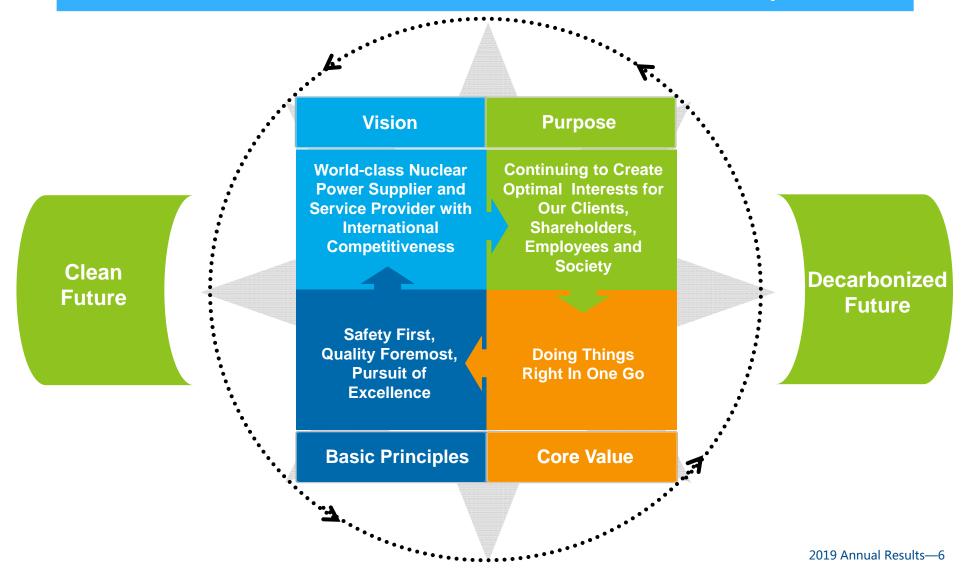
## 善用自然的能量



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China and world's energy has been becoming green and low-carbon, which is a solid foundation for CGN's sustainable development.





## **Excellence, Stability, Green& Growth**

## 善用自然的能量

- Robust business, adhere to high standards, and achieve stable performance in high-quality operations and engineering construction;
- Financial stability, ensuring capital security, and ensuring overall stable operating performance;
- Stable returns, keep promises, implement long-term stable dividend policy.
- Keep improving safety performance by benchmarking with WANO standards;
- Practice "specialization, centralization and standardization" (SCS) strategy to continuously enhance multi-unit management and control capabilities;
- Implement lean management, constantly optimize operating and project construction costs..



- Dedicated to developing clean energy, focusing on nuclear power and nuclear energy utilization
- Improving resources utilization rate and reducing resources consumption
- Controlling emissions strictly and protecting the environment

- Pushing ahead with the approval and kick-off of new projects to maintain leading position in business scale
- Adopting innovation driven strategy, keep applying new technologies to promote sustainable development of the company
- Tracking international market and seizing proper opportunities

r核())CGN Key Stat	ts of 2019 善用自然的能量
— On-Grid Power Generation —	Installed Capacity in Operation
178,969.73GWh(Subsidiaries & Associates) +13.96% yoy   148,206.20GWh(Subsidiaries) +15.09% yoy	27.14GW(Total) +11.67% yoy 15.12GW(Attributable to owners) +11.45% yoy
WANO Indicators	Installed Capacity under Construction
achieved world top 1/4 advanced level76.39%achieved world top 1/10 excellent level72.22%	4.60GW(Total)-38.15% yoy1.72GW(Attributable to owners)-47.55% yoy
Revenue	Profit Attributable to Owners
RMB 60,875M +19.8% yoy	RMB 9,466M +8.8% yoy
EBITDA	Dividend Per Share
RMB 34,886M +20.2% yoy	RMB 0.076/share (tax included) +5.6% yoy
	2019 Annual Results-



# Key Tasks in 2020

# 善用自然的能量

- ✓ Safe and stable operation of all the units;
- Steady progress in construction projects;
- Strive to achieve the average utilization hours no lower than last year;
- ✓ Carry out 18 refueling outages.



- Keep innovating and developing & strengthening the conversion of scientific research achievements;
- Implement lean management, constantly optimize operating and project construction costs.
- Strengthen cultivation of a talented team ;
- Well prepared for new projects approval;
- Strive for a reasonable mode of Guangdong NPPs to participate in the market-based power generation.

Qtr	Refueling Outage Plan for 2020					
Q1	L3 , Y3 , F1					
<b>Q</b> 2	L4 , N1 , H2 , H4					
<b>Q</b> 3	L2, Y2, N4 , Y6 , T1					
Q4 D2 , Y5 , N3 , H1 , H3, F2						
D-Daya Bay. L-Ling'ao & Lingdong. Y-Yangjiang. N-Ningde. H-Hongyanhe. F-Fangchenggang. T-Taishan						

#### Marketing Strategy

#### **Guangdong:**

 Adoption of "Maximized generation with favorable tariff" strategy

#### Fujian/Guangxi/Liaoning:

- Maximization of the planned generation
- Proactive actions in power market
- Development of more consumption channels





# Part II Business Performance





# Leading Position in Business Scale

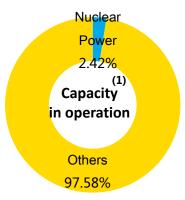
# 善用自然的能量

# Yangjiang Unit 6 started commercial operation

#### Taishan Unit 2 started commercial operation

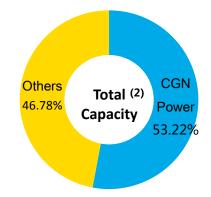


#### total installed capacity in operation of Nuclear Power





#### total capacity of NPPs managed by CGN Power



Note1 : According to CLP's 2019 Mainland China Power Industry Statistics Report (as of December 31, 2019), China's nuclear power installed capacity in operation was 48.74 GW, with a total installed power capacity of 2010.66 GW.

Note 2: As of December 31, 2019:

CGN Power: 29 units with a total installed capacity of 32.94 GW, including the Huizhou Unit 1 managed by CGN Power as entrusted by the controlling shareholder. Others: 30 units with a total installed capacity of 28.95 GW.

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# **Steady On-Grid Power Generation Growth**

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#### China continues to introduce policies to support nuclear power development and consumption

Action Plan for Clean Energy Consumption (2018–2020) Under the condition of securing nuclear safety, most of nuclear power achieves guaranteed consumption in 2018-2019, nuclear power achieves total guaranteed consumption by 2020 NEA the Notice of Standardizing the Management of the Plan of Priority Power Generation and Priority Purchase (2019/1/22) Make sure the clean energy, such as nuclear power, maintains base load with maximized generation and be in safe operation.

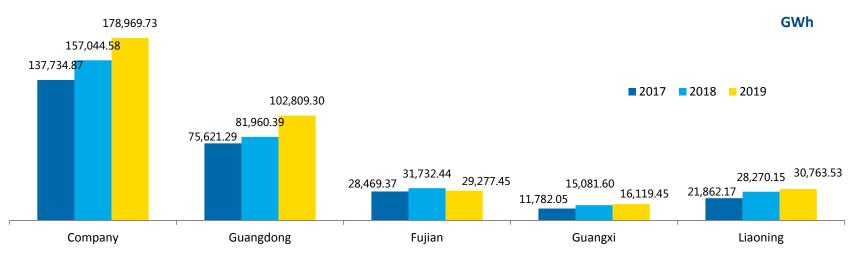
NDRC, NEA

the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area (2019/2/18) To build a clean, low-carbon, safe and efficient energy supply system, including "safe and efficient development of nuclear power".

CPC Central Committee, State Council the Notice on Full Liberalization of Power Generation and Utilization Plan of Operating Electricity Users (2019/6/27) To study and advance the implementation of the policy of guaranteeing priority power generation, and to focus on the guaranteed acquisition of clean energy such as nuclear power, hydropower, wind power and solar power.

NDRC

#### **Overall and Different Regions On-grid Power Generation**



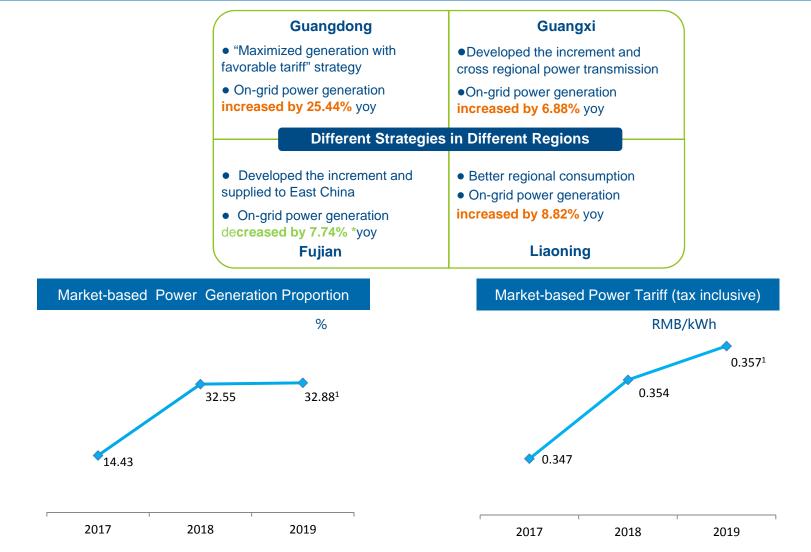
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Gradually Stabilized Market-based Power Tariff

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### Plan Ahead, Adapt Proactively and Actively Seek to Seize Opportunities

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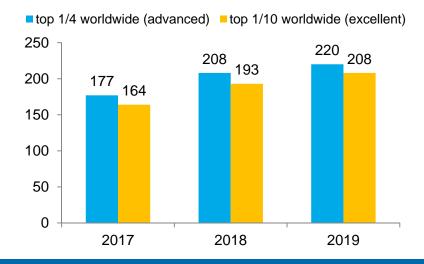
Note \*: Affected by climatic conditions and in line with grid requirements, the load shedding time of the units of Ningde NPP in 2019 is more than that of 2018. Note1: The market-based power generation proportion and the market-based power tariff are calculated taken into account of Guangdong Province.

# 中广核 GOOd Safety Management Performance

## 善用自然的能量



More WANO<sup>(1)</sup> Indicators Achieved Top 1/4 and 1/10 worldwide



**Good Safety and Operation Record** 

Ω

operation of Yangjiang Unit

Accident Rate" of Yangjiang

Since the commercial

1, the "Industrial Safety

Nuclear has remained at

zero for six consecutive

years.

0

No operational events

at level 2 or above of

Nuclear Event Scale

the International

has occurred.

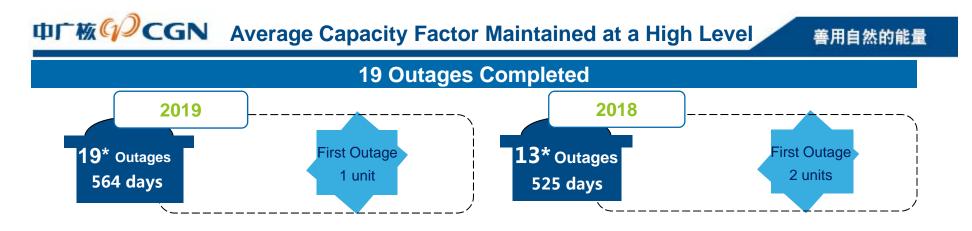
# 4953 Days

Ling'ao Unit 1 has no non-planned shutdown for 14 consecutive years. As of Dec. 31, 2019, it has been operating safely for 4,953 days.

Note 1: WANO-World Association of Nuclear Operators, WANO organizations, through their members, use them to formulate internationally common performance indicators for unified management and coordination, which is conducive to strengthening the exchange of nuclear power technology, experience and accident information to continuously improve the safety and reliability of NPPs in the world, the organization has successfully operated for 25 years.



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	Qtr	Annual Outage	First Outage	Average Capa	Average Capacity Factor maintain
	Q1	L2、Y1、N2、N3(2017.12- 2018.1) 、H2	Y4		
2018	Q2	D1、L1、Y3、H3			
	Q3	L3、F1	H4		92.75%
	Q4	N1(2018.11-2019.1)			
	Q1	N1(2018.11-2019.1)、L4、Y2、 N4、H2、H3		♦ 89.5	◆ 89.59%
2019	Q2	D2、L2、N3、H1、F2	Y5		
	Q3	L1、Y1、Y4、N2、H4			
	Q4	D1、H3		2017	2017 2018

Note \*: The number of outages in 2018 and 2019 is counted based on whether completed in that year, while the outage days based on the actual days happened. 2019 Annual Results—15

# **Construction Proceeding at a Steady Pace**

Units	Civil Construction Phase	Equipment Installation Phase	Commissioning Phase	Grid Connection Phase	Expected COD
Hongyanhe Nucle	<u>ear</u>				
Hongyanhe Unit 5			A.z		2H2021
Hongyanhe Unit 6		<u>Aut</u>		1H2022	
Fangchenggang N	luclear				
Fangchenggang U	nit 3	<u>Lit</u>			2022
Fangchenggang U	nit 4 👫				2022
Huizhou Nuclear*	2				
Huizhou Unit 1	A.c.				

Note 1: As of December 31, 2019

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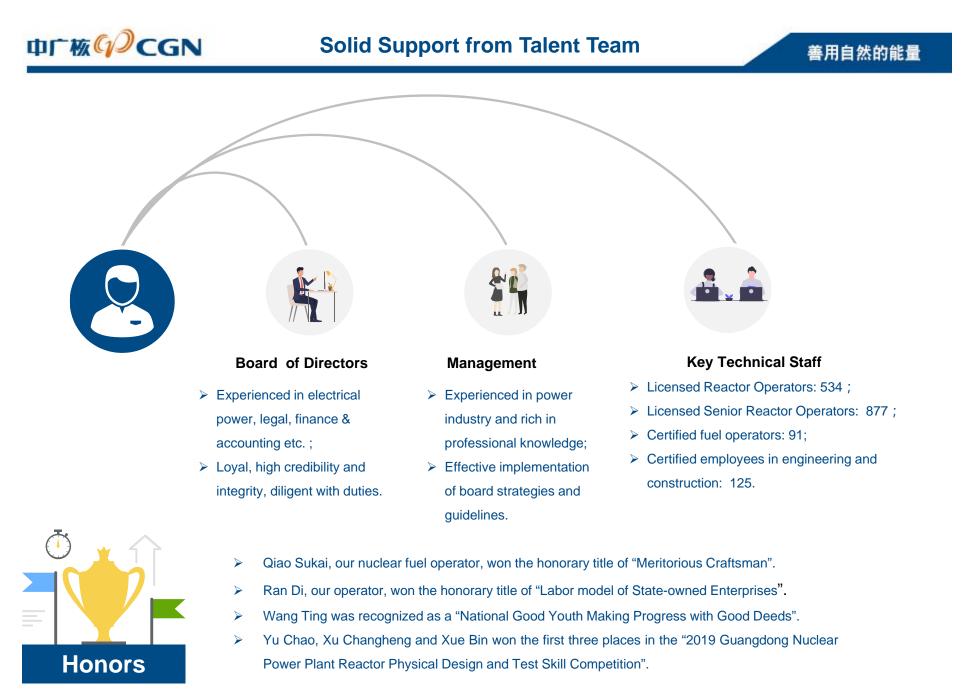
Note 2: Civil construction phase refers to the process from the First Concrete Day ("FCD") to the proper roof installation of the main plant of the nuclear reactor.

Note3: Equipment installation phase refers to the process from the installation of nuclear island equipment upon the roof installation of the main plant of the nuclear reactor to the nuclear island main system meeting the conditions to conduct cold function tests.

Note4: Commissioning phase refers to the process of conducting cold function tests for nuclear island main system and commencing joint commissioning for the power plant.

Note 5: Grid connection phase refers to the commissioning of generators upon the first grid connection with the power grid, demonstrating that the power generating units are capable for power generation.

Note \*: Huizhou Unit 1 is managed by the Company as entrusted by the controlling shareholder.



# 中广核 **G** CGN Open and Transparent Protect the Environment

# 善用自然的能量

#### **Proactive Disclosure**

- Each base has information disclosure platform. Operation event is made public within 2 working days.
- We use specialized webpages and official WeChat, explore communication mechanisms, and increase scientific popularization.
- We take the initiative to report to supervisory authorities and national regulatory agencies.

#### **Good Environmental Performance**

- The environmental monitoring system is well-developed and the environmental monitoring results are normal.
- > Radioactive waste emissions are below national limits.

2019	Daya Bay Base (1)	Yangji ang Base	Taish an Base (2)	Ningd e Base	Hong yanhe Base	Fangc hengg ang Base	
Radioactive liquid waste (non-tritium radionuclide) emissions as a percentage of national standards	0.27%	0.55%	3.02%	0.24%	0.19%	0.29%	2019 nuclear power on-grid about 178,969.73GWh Equivalent to
Radioactive gas waste (inert gas) emissions as a percentage of national standards	0.43%	0.30%	1.59%	0.28%	0.20%	0.29%	Reduce carbon dioxide emissions by about 150, 510,000 tons The emission reduction benefit is equivalent to
Environmental monitoring results	Normal	Normal	Normal	Normal	Normal	Normal	400,000 hectares of forest covering 2 entire areas of Shenzhen

Note1: Daya Bay Nuclear Power Base includes Daya Bay Nuclear Power Station, Ling'ao Nuclear Power Station and Lingdong Nuclear Power Station. Note2: The annual emission limit of Taishan Nuclear Power Station was different from other power stations, and there is no comparability between the power stations.



# **A+H Listing Boosts Development**





- A-share IPO successfully completed on August 26, 2019
- No. of A shares issued: 5,049,861,100 shares
- Price : RMB 2.49 per Share
- Net proceeds: approximately RMB12,390 million

- Reduce our financial costs

- Improve company capital structure
  - Guarantee the investment and construction of our nuclear power projects



# 中广核 **G** CGN Shoulder Responsibilities Develop Sustainably

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ESG: Environmental, Social and Governance, the ESG investment philosophy has become one of the most important development directions in the current responsible investment field globally.





CGN Power - "Special Nomination Award in Governance among H-shares and Other Mainland Companies" by Hong Kong Institute of Certified Public Accountants

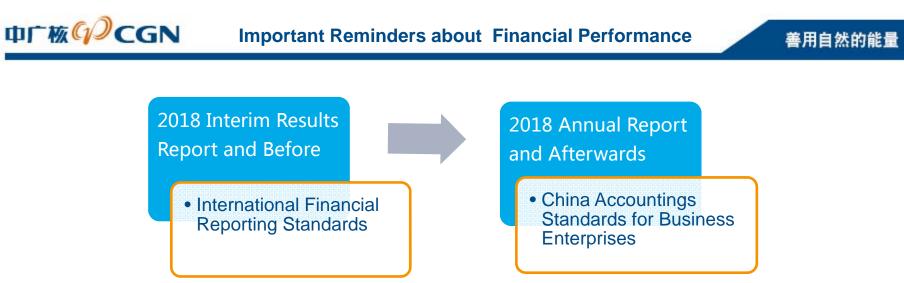
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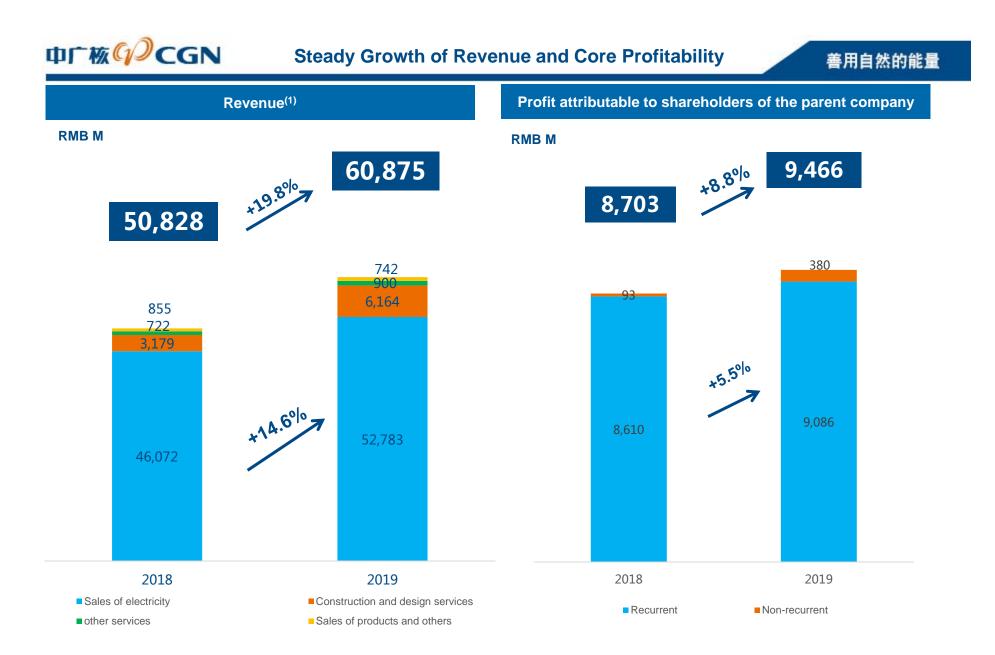
# Part III Financial Performance



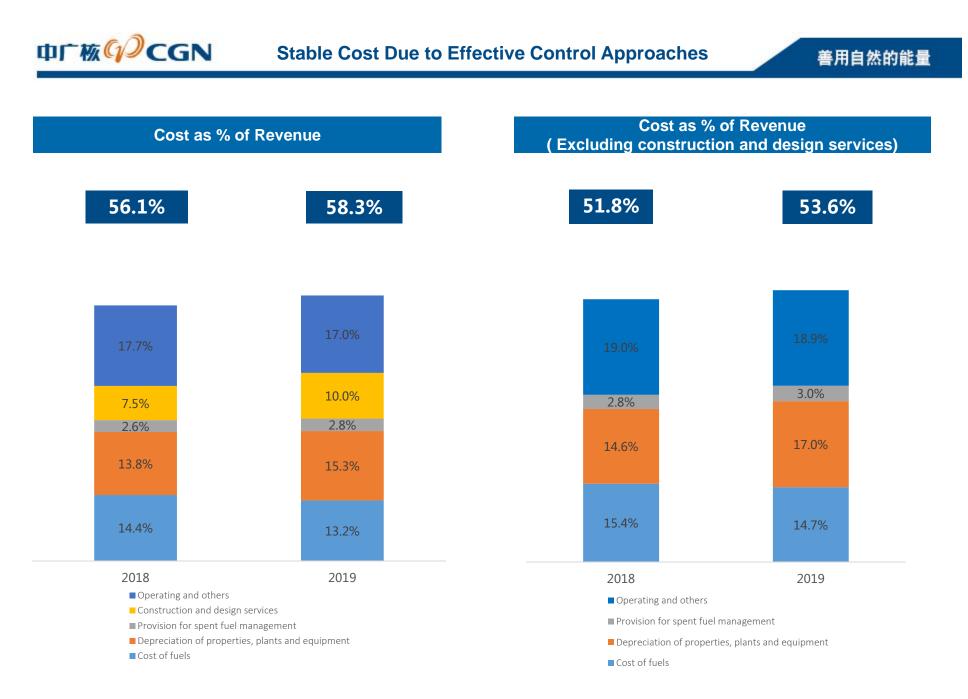


# Major Non-Recurring Gain/Loss

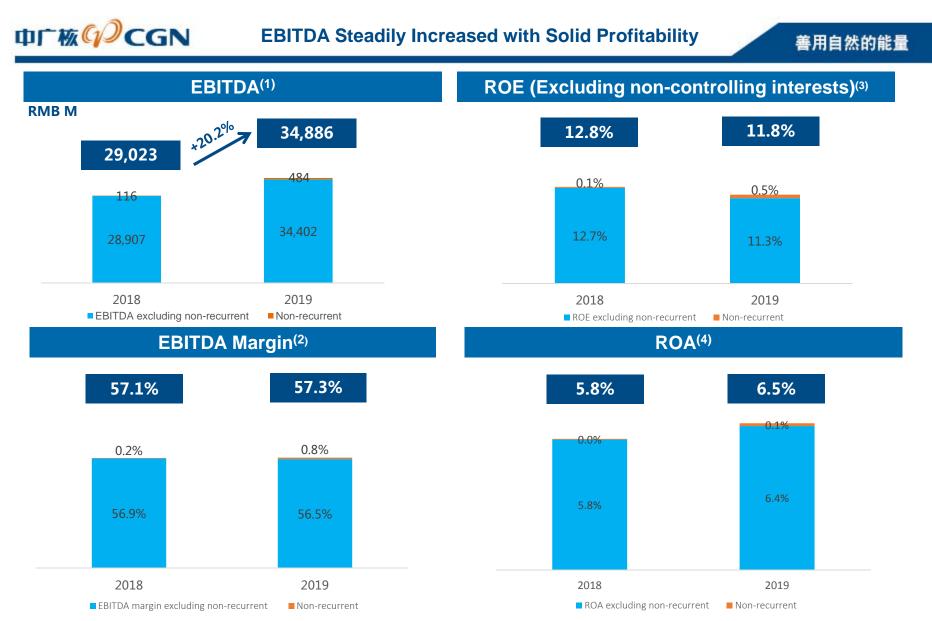
Year	Gain/Loss of Disposal of Non-Current Assets	Government Subsidy Recorded in Current Gain/Loss	Others
2018	N/A	Government Subsidy Recorded in Current Gain/Loss	Other non- operating income and expenses
2019	Gain from Sale of Shanghai Company	Government Subsidy Recorded in Current Gain/Loss	Other non- operating income and expenses



Note1: Hongyanhe Nuclear is not included in the consolidated financial statements, therefore the revenue of Hongyanhe Nuclear is not included in the Company' s revenue.



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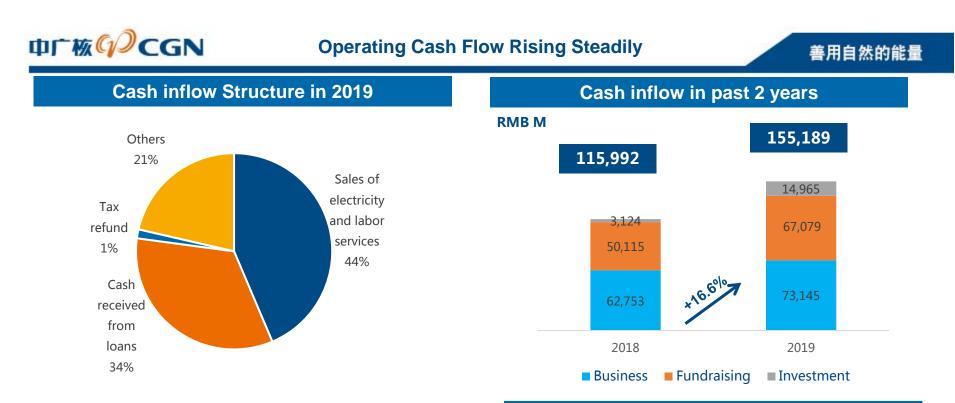


Note 1: EBITDA=Total profit + Interest expenses recognized in profit or loss + Depreciation and amortization

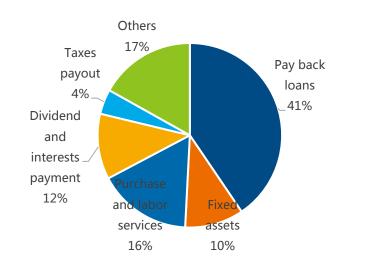
Note 3:ROE(Excluding non-controlling interests)= Net profit attributable to shareholders of the parent company/Average equity attributable to shareholders of the parent company (the arithmetic mean of the opening and closing balances) \* 100%

Note 2: EBITDA margin= EBITDA/Revenue \* 100%

Note 4: ROA(Return on total assets)= (Total profit + Interest expenses recognized in profit or loss)/Average total assets (the arithmetic mean of the opening and closing balances) \* 100%

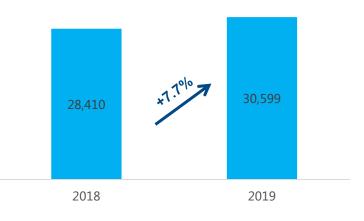


## **Cash outflow Structure in 2019**



### Net operating cash flow in past 2 years

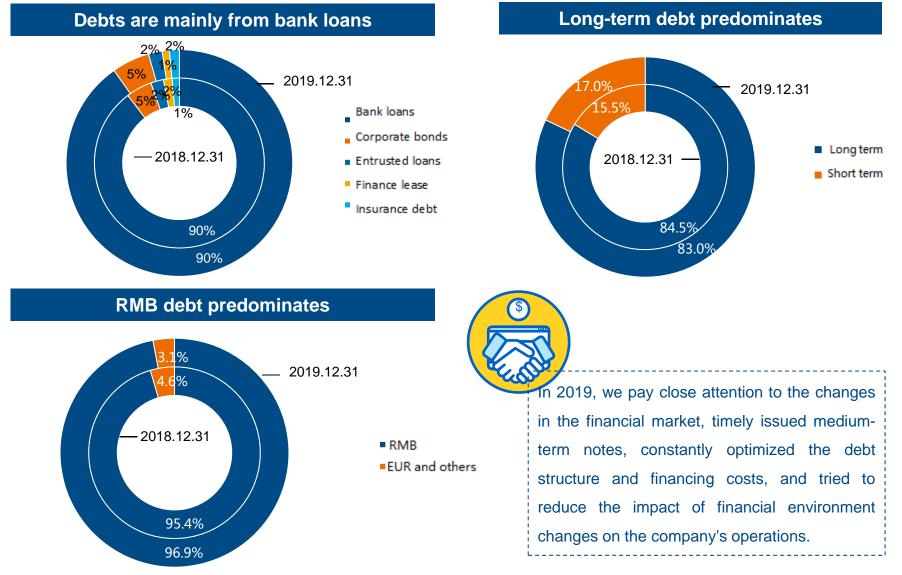
**RMB M** 



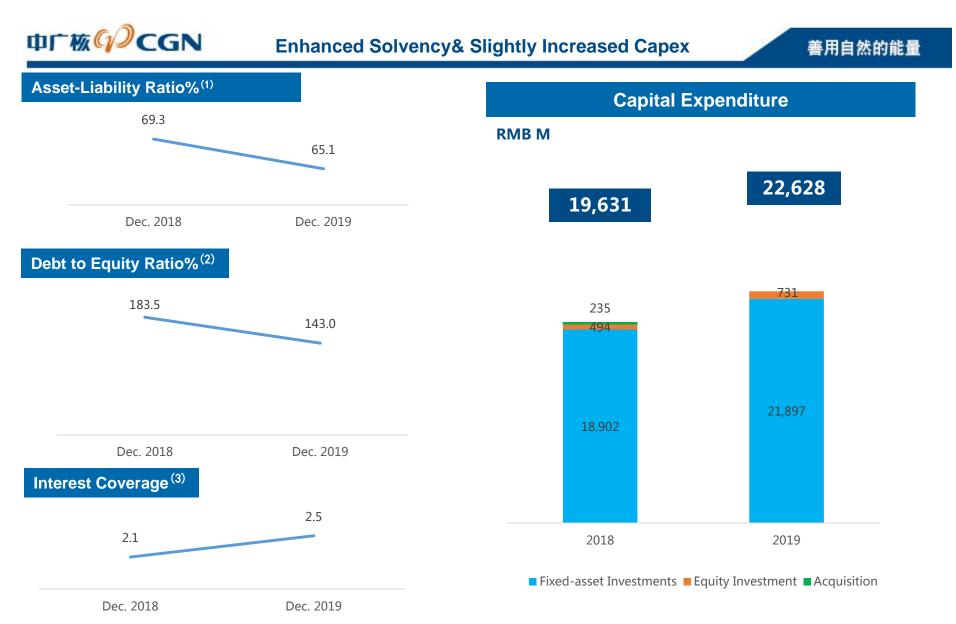
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# 中广核(P)CGN

The company follows the principle of considering both cost and security, ensures financing security and controlling financing costs through building solid debt structure.



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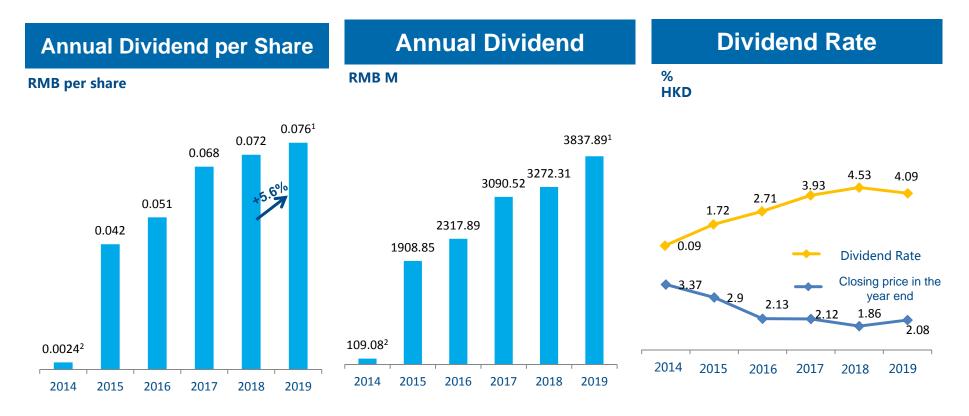


Note1 : Asset-Liability ratio=(Total liabilities / Total assets)\*100%

Note2 : Debt to equity ratio=Net debt (the total amount of bank and other borrowings less cash and cash equivalents and other deposits over three months)/Total shareholders' equity\*100%

Note3 : Interest coverage=(Total profit + Interest expenses recognized in profit or loss)/(Interest expenses recognized in profit or loss + interest expenses capitalized)

The Board and the management of the Company pay attention to providing its shareholders with steady and growing dividend. By attaching great importance to the safe and stable operation of nuclear power generating units and striving to achieve the stable growth of the Company's overall operation, the Company intends to achieve the target of maintaining a reasonable increase in dividend (subject to approval at the general meeting of the relevant financial year) for each of the three financial years of 2018, 2019 and 2020 based on the annual dividend per share for 2017.



Note 1: The final dividend of 2019 will be distributed after being approved by our shareholders at the 2019 annual general meeting of the Company. Note 2: Dividend period of 2014 was from 10th Dec to 31st Dec.



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# Part IV Q&A





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