

中广核  CGN

中國廣核電力股份有限公司
CGN Power Co., Ltd.

一次把事情做好

CGN POWER CO.,LTD. (1816.HK)
2018 Annual Results

March 2019



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Part I

Development Strategy

Part II

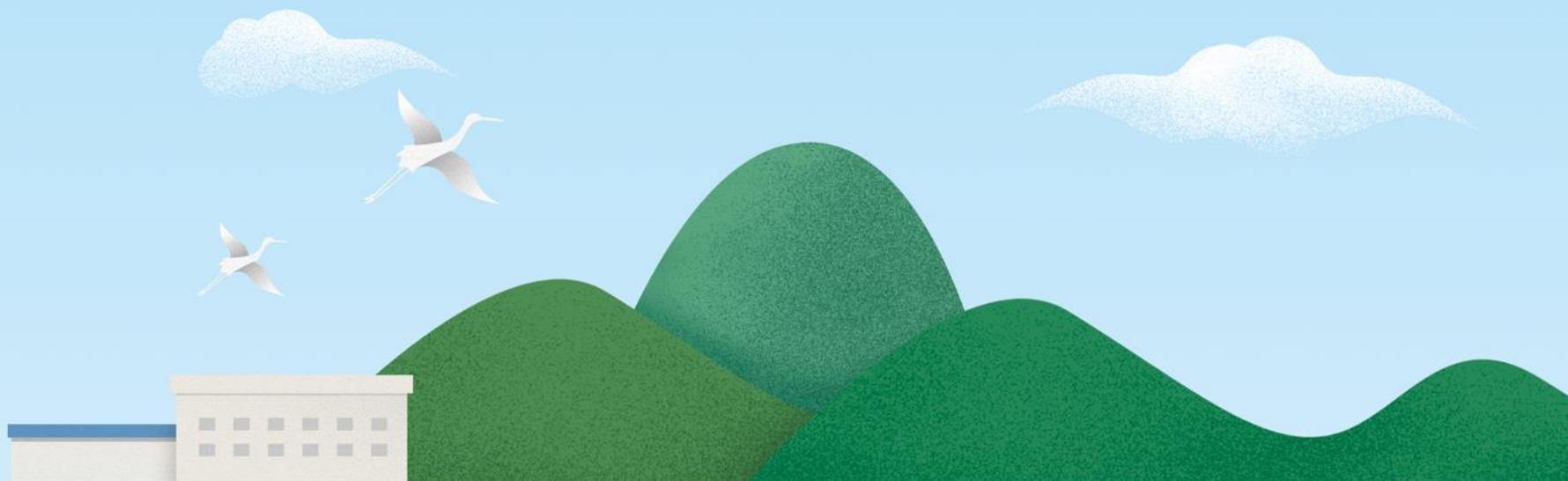
Business Performance

Part III

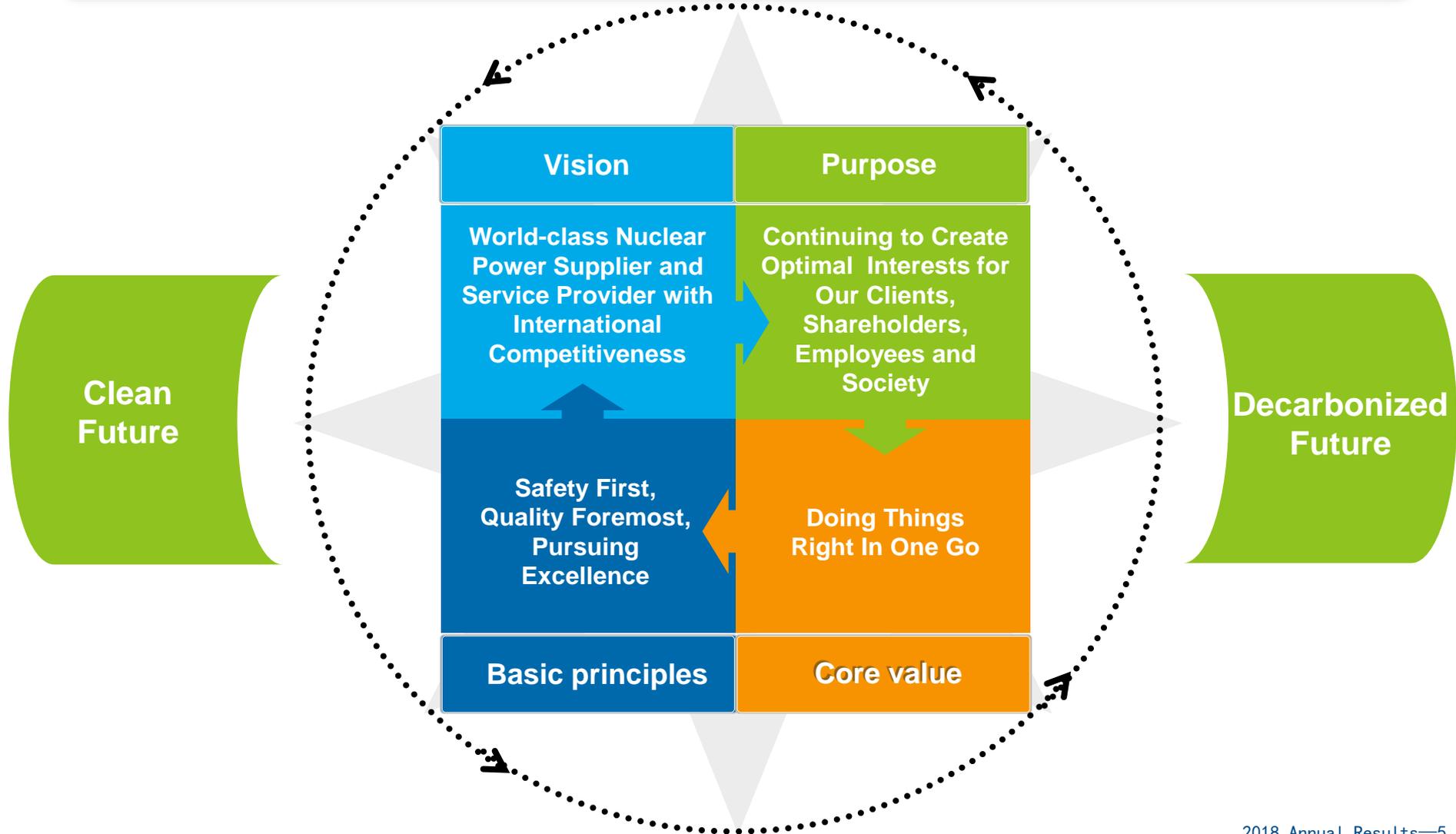
Financial Performance

Part I

Development Strategy



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



- Sticking to high standards, pursuing stable operation performance and proceeding project construction as planned
- Promising stable finance performance, ensuring financial security and continuously reducing liability ratio
- Valuing shareholder returns, implement a long-term and stable dividend policy

- Keep improving safety performance by benchmarking with WANO standard
- Promoting excellent operation and realizing lean management to reduce operating cost continuously
- Optimizing design and project management to reduce cost and shorten project duration.



- 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 leadership 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

On-Grid Power Generation

157,044.58GWh(Subsidiaries & Associates) **+14.02% yoy**
 128,774.43GWh(Subsidiaries) **+11.13% yoy**

WANO Indicators

78.79%*

***WANO indicators achieved world top 1/4**

Revenue

RMB 50,828MM **+11.4% yoy***

***as restated**

EBITDA

RMB 28,921M **+12.5% yoy***

***as restated ; excluding the gains of remeasurement and other one-time gain and loss**

Capacity in Operation

24.31GW(Total) **+13.21% yoy**
 13.61GW(Attributable to owners) **+8.17% yoy**

Capacity under Construction

7.43GW(Total) **-27.61% yoy**
 3.27GW(Attributable to owners) **-39.45% yoy**

Profit Attributable to Owners

RMB 8,610M **+8.0% yoy***

***as restated ; excluding the gains of remeasurement and other one-time gain and loss**

Dividend Per Share

RMB 0.072/share (tax included) **+5.9% yoy**

- Safe and stable running of all operating units. Strive to achieve the average utilization hours no lower than last year
- Completing 17 Refueling outages

- Realizing commercial operation of Yangjiang Unit 6 and Taishan Unit 2
- Being prepared and pushing forward new projects approval

Doing things right in one go
Sticking to quality development

- Promoting IPO in A-share market
- Implementing lean management to lower project cost and KWH cost

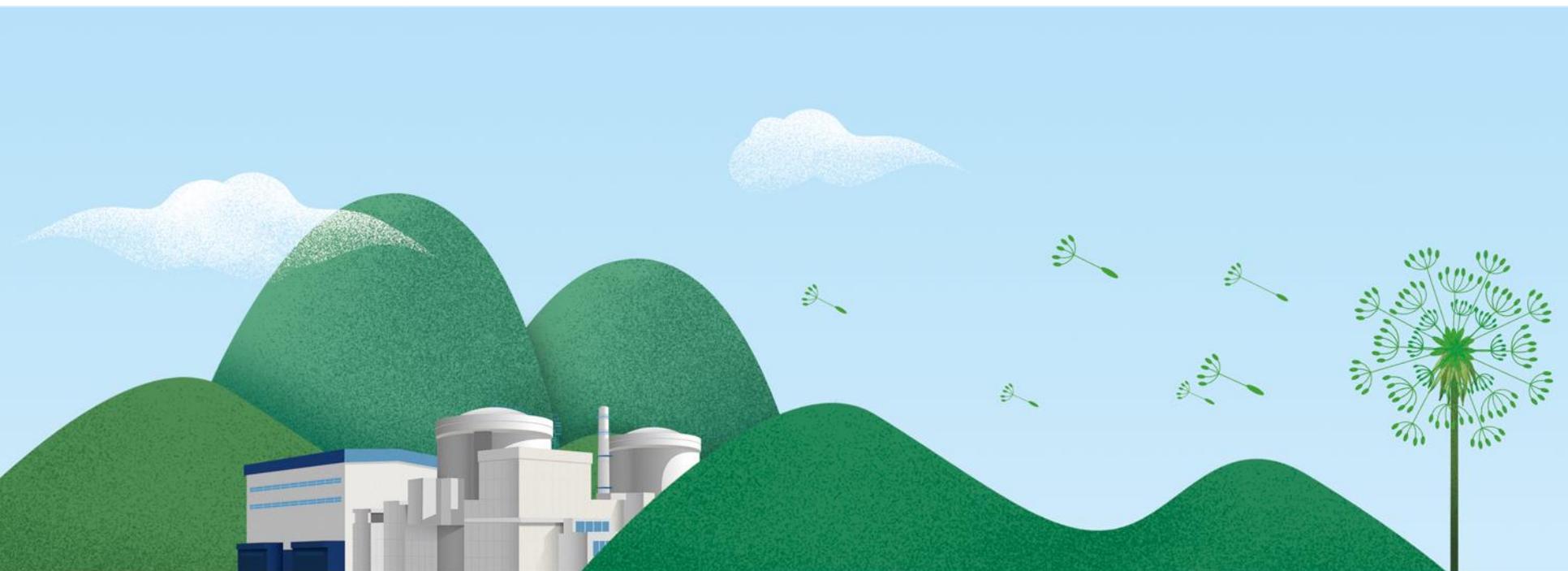
- Keep innovating and developing & strengthening the conversion of scientific research achievements

Qtr	Refueling Outage Plan for 2019
Q1	H2, Y2, L4, N4, H3
Q2	F2, D2, N3, H1, L2, Y5
Q3	Y4, N2, H4
Q4	Y1, D1, L1
D-Daya Bay. L-Ling'ao & Lingdong. Y-Yangjiang. N-Ningde. H-Hongyanhe	

Marketing Strategy
<p>Guangdong:</p> <ul style="list-style-type: none"> • Adoption of “Maximized generation with optimized tariff” strategy <p>Fujian/Guangxi/Liaoning:</p> <ul style="list-style-type: none"> • Maximization of the planned generation • Active movement in power market • Development of more consumption channels

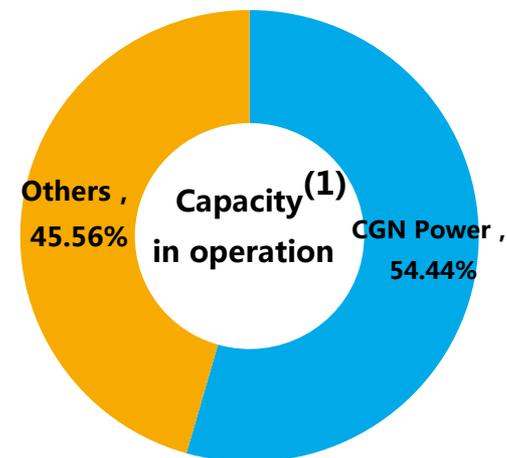
Part II

Business Performance



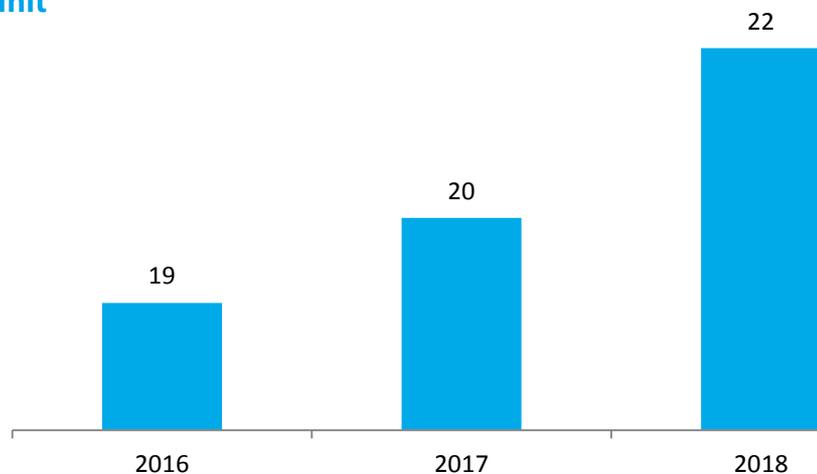
Yangjiang Unit 5 started commercial operation

Taishan Unit 1 started commercial operation



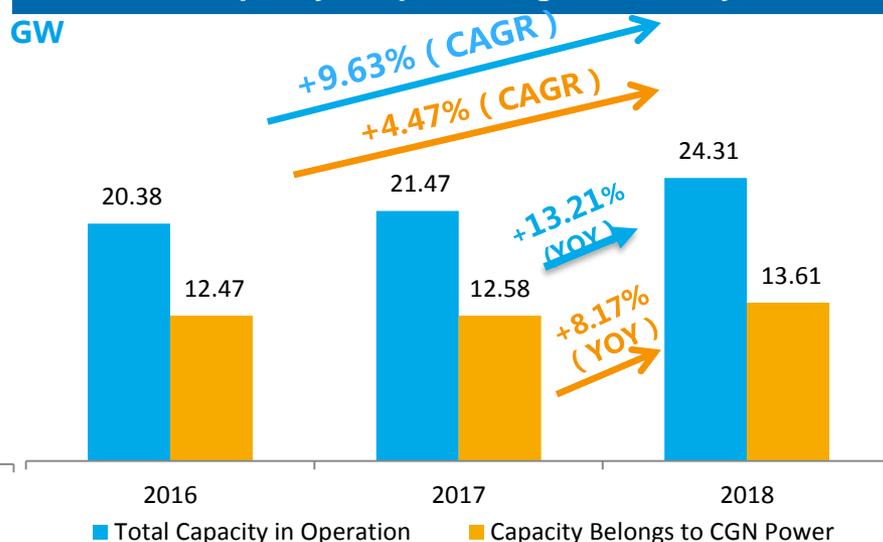
NO. of units in operation increased consecutively

unit



Capacity in operation grew steadily

GW

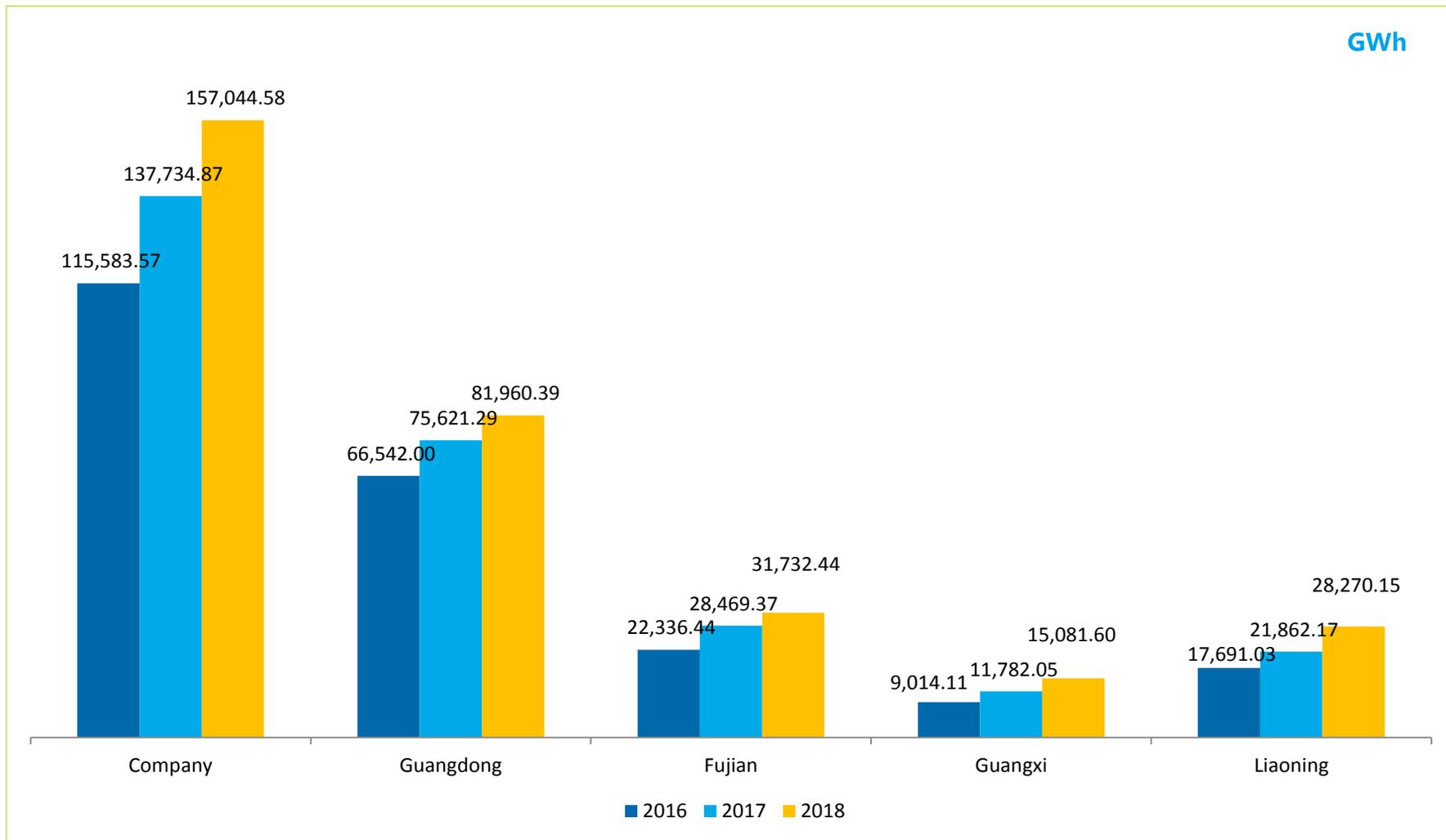


Note 1 : Units in operation in Mainland China (as of Dec 31st, 2018)

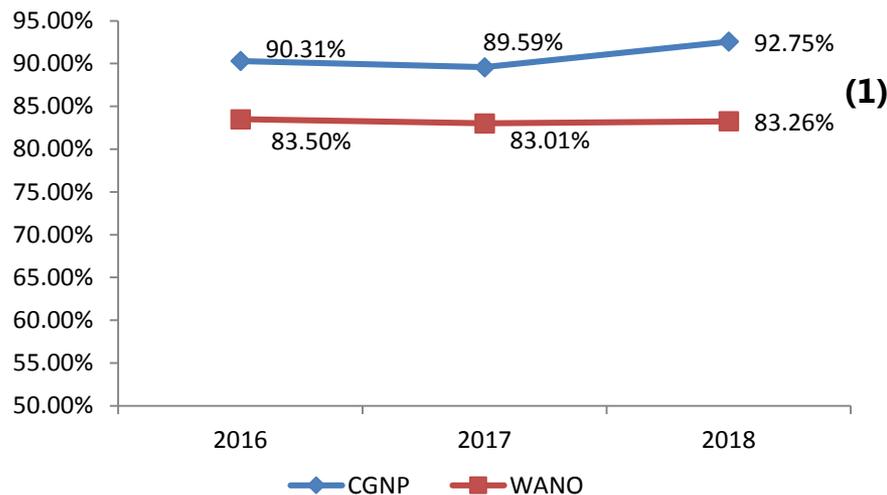
CGN Power : 22 units in operation, total installed capacity 24.31 GW, 54.44%

Others : 22 units in operation, total installed capacity 20.35 GW, 45.56%

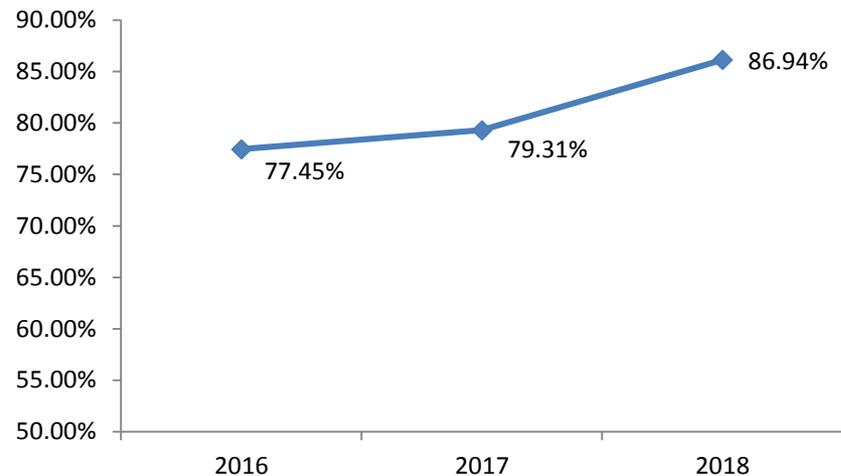
Overall and Different Regions On-grid Power Generation



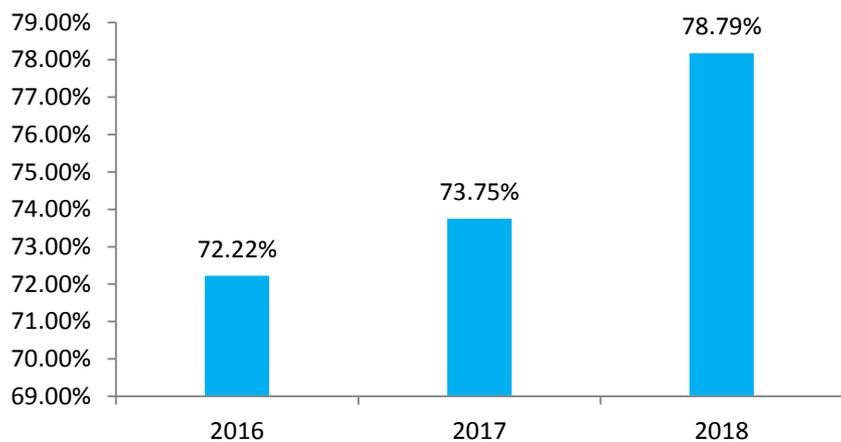
Average Capacity Factor maintained at a high level



Average Load Factor Improved



More WANO indicators achieved world's top quartile



Ling'ao Unit 1 is been operating Safely for more than 4,600 days (Excluding outages)



Note 1: We use average values during the past three years as assumed 2018 indicator values due to the reason 2018 WANO Performance Indicators hasn't announced yet.

Three-year Action Plan for Air Quality

By 2020, the share of non-fossil energy in the overall consumption will rise to 15%. Nuclear power will be developed in a safe and efficient manner.

- State Council

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

Guangdong

- “Maximized generation with optimized tariff” strategy
- On-grid power generation **increased by 8.38% yoy**

Guangxi

- Developed the increment and across regions supply channels
- On-grid power generation **increased by 28.00% yoy**

Different Strategies in Different Regions

- Developed the increment and supplied to East China
- On-grid power **increased by 11.46% yoy**

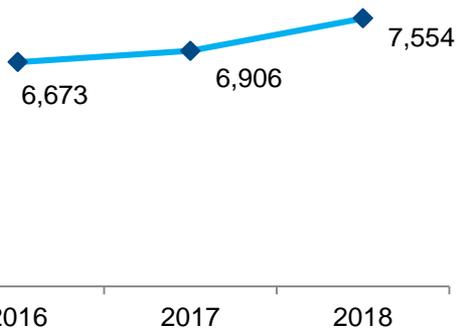
Fujian

- Electricity supplied to North China and Shandong
- On-grid power generation **increased by 29.31% yoy**

Liaoning

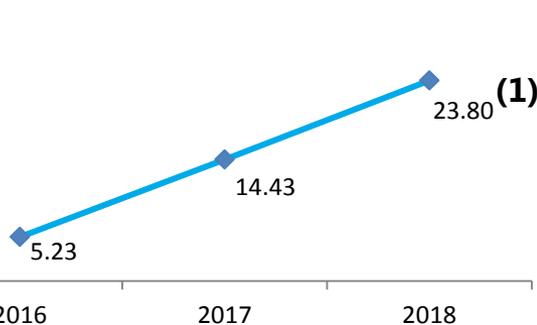
Average Utilization Hours

Hour



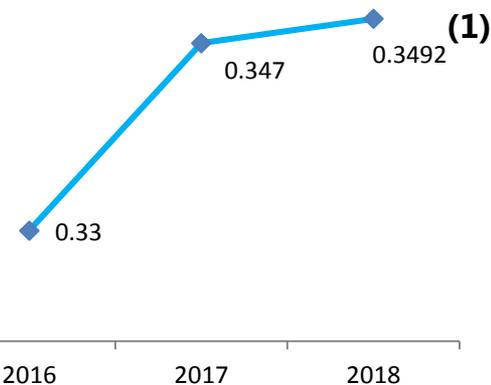
Marketized Power Supply Proportion

%



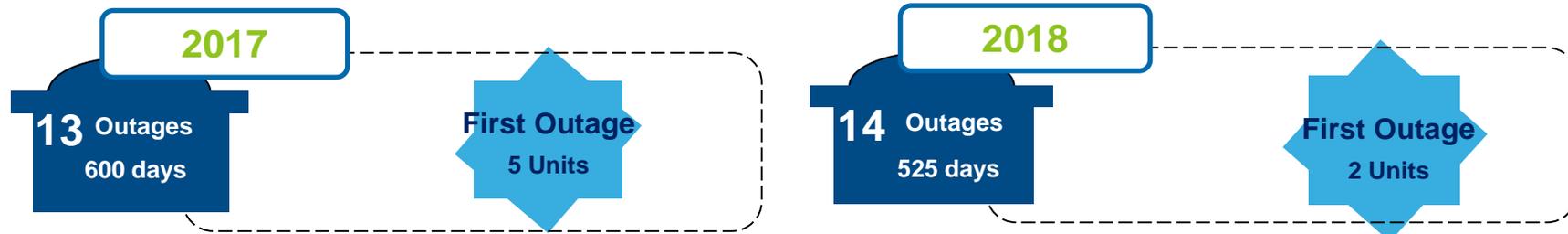
Marketized Power Tariff

RMB/kwh



Note 1: The marketized power supply in 2018 does not include the part that Guangdong participated via the “Maximized generation with optimized tariff” mode.

14 Outages Carried Out



Units	Capacity Factor%		Load Factor%		Utilization Hours		Outage	
	2018	2017	2018	2017	2018	2017	2018	2017
Daya Bay Unit 1	89.25	99.98	90.34	101.23	7915	8869	Annual Outage	
Daya Bay Unit 2	99.72	88.74	100.87	89.41	8838	7834		Annual Outage
Ling'ao Unit 1	87.52	89.15	84.19	84.59	7373	7408	Annual Outage	Annual Outage
Ling'ao Unit 2	92.09	96.32	87.61	93.22	7672	8164	Annual Outage	
Lingdong Unit 1	89.32	86.99	88.12	84.19	7720	7369	Annual Outage	Annual Outage
Lingdong Unit 2	98.34	91.33	91.85	85.97	8047	7525		Annual Outage
Yangjiang Unit 1	88.23	99.61	86.09	97.10	7541	8506	Annual Outage	
Yangjiang Unit 2	99.98	87.97	99.72	84.17	8736	7373		Annual Outage
Yangjiang Unit 3	91.61	86.49	88.58	83.00	7759	7271	Annual Outage	First Outage
Yangjiang Unit 4	82.42	90.00	73.79	89.41	6464	7832	First Outage	
Yangjiang Unit 5	99.60	Under Construction	95.05	Under Construction	8326	Under Construction		
Taishan Unit 1	96.47	Under Construction	94.97	Under Construction	8319	Under Construction		

Units	Capacity Factor%		Load Factor%		Utilization Hours		Outage	
	2018	2017	2018	2017	2018	2017	2018	2017
Fangchenggang Unit 1	89.60	↑ 76.19	83.32	↑ 59.05	7299	↑ 5172	Annual Outage	First Outage
Fangchenggang Unit 2	99.98	↑ 80.70	85.87	↑ 74.25	7522	↑ 6505	--	First Outage
Ningde Unit 1	88.50	↑ 83.66	84.48	↑ 79.86	7401	↑ 6996	Annual Outage	Annual Outage
Ningde Unit 2	89.13	↓ 98.80	86.30	↓ 91.11	7560	↓ 7981	Annual Outage	--
Ningde Unit 3	92.54	↓ 95.62	89.54	↑ 88.20	7843	↑ 7726	First Outage	
Ningde Unit 4	99.99	↑ 84.38	94.27	↑ 60.63	8258	↑ 5311	--	First Outage
Hongyanhe Unit 1	99.98	↑ 88.92	95.95	↑ 79.41	8406	↑ 6957	Annual Outage	
Hongyanhe Unit 2	89.80	↓ 98.08	84.03	↑ 63.77	7362	↑ 5586	Annual Outage	
Hongyanhe Unit 3	91.17	↑ 83.07	71.11	↑ 61.46	6231	↑ 5384	Annual Outage	First Outage
Hongyanhe Unit 4	85.16	↓ 85.76	56.56	↑ 36.14	4956	↑ 3166	First Outage	--
Average	92.75	89.59	86.94	79.31	7,554	6,906	--	--

Unit	Technology	Civil Construction	Equipment Installation	Commissioning	Grid-connection	Expected COD
Subsidiaries						
Yangjiang Unit 6	ACPR1000					2H2019
Taishan Unit 2	EPR					2019
Fangchenggang Unit 3	HPR1000					2022
Fangchenggang Unit 4	HPR1000					2022
Associates						
Hongyanhe Unit 5	ACPR1000					2H2020
Hongyanhe Unit 6	ACPR1000					2021

Yangjiang Unit 6 CFT Completed



Taishan Unit 2 HFT Commenced



Fangchenggang Unit 3 Dome Lifting Completed



Hongyanhe Units Progressing as planned



Reactor Pressure Vessel Maintenance and Seized Main Bolts Emergency Removal Set Equipment

- **Technical introduction:** It is an equipment specially designed for removing seized bolts, repairing screw holes and grinding sealing surface on the flange in reactor pressure vessel of nuclear power plant, which has broken up monopoly enjoyed by overseas peers and reached international advanced standards. It'll be applied in Ling'ao NPP, Hongyanhe NPP, Fangchenggang NPP, Yangjiang NPP and Ningde NPP.
- **Effectiveness:** Enhancement of work precision, significant improvement of maintenance efficiency and quality and cost saving.

Automatic Fuel Assemblies Loading & Unloading and Transshipping Equipment for PWR

- **Technical introduction:** It is a special equipment for uploading/downloading of fuel assemblies, which has broken up monopoly enjoyed by overseas peers and reached international advanced Standards. It can be applied to GII+ & GIII Reactors. It Has been successfully applied in renovation projects in Daya bay NPP, Ling'ao NPP and Ningde NPP as well as the supply projects in Fangchenggang NPP, Yangjiang NPP and Hongyanhe NPP.
- **Effectiveness:** Enhancement of safety and reliability, time saved for 10+ hours in each outage and also cost saved.



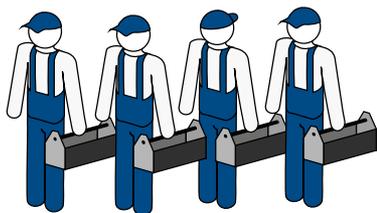
Board of Directors

- Experienced in power, finance & accounting, legal and audit etc
- Loyal, high credibility and integrity, diligent with duties



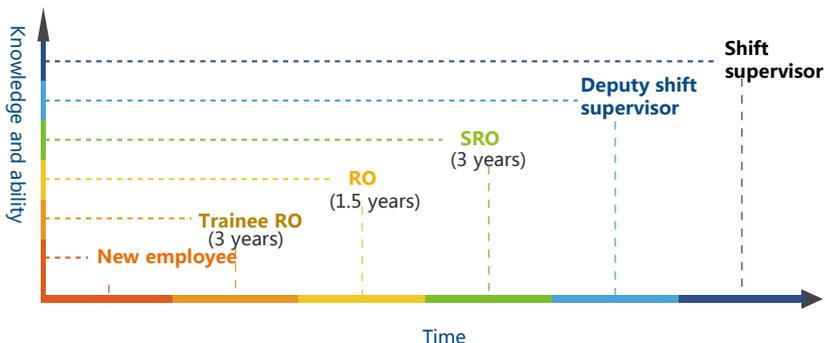
Management

- Experienced in power industry and rich in professional knowledge
- Further enhanced through appointing 2 new VPs, one of them was also assigned the role of the Board Secretary



Key technical staff

- Licensed Reactor Operators(RO): 612
- Licensed Senior Reactor Operators(SRO): 734
- Certified employees in engineering and construction: 125



- Qiao Sukai from CGN Operations won the honorary title of "Great Country Craftsman" & "National Technologist"
- Zhou Chuangbin from CGN Engineering won the honorary title of "China Skill Award"
- Jia Zhengjun from DNMC won the "May 1st Labor Medal" of Guangdong Province
- Dai Fubing, Hu Zhenhe, and Yan Jichao from CGN Operations won the title of "Shenzhen technical expert".

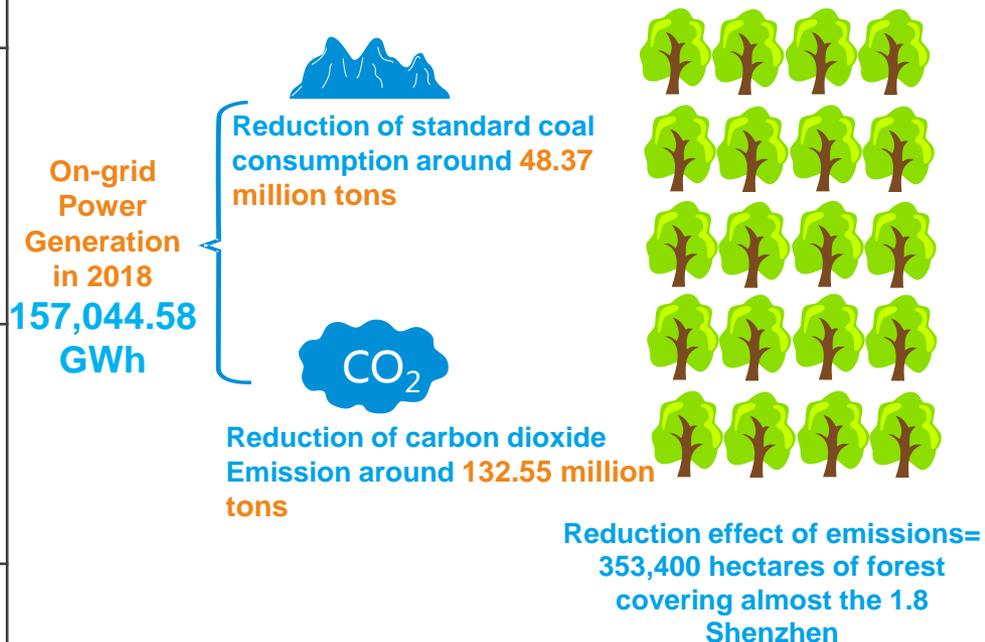
Proactive Disclosure

- Information disclosure platform guarantees effective communication, all operational events are disclosed within 2 working days
- Proactively and timely report to national regulators

Good performance in environmental protection

- Well-developed environment monitoring system
- Normal ambient monitoring results
- Emissions lower than national standards

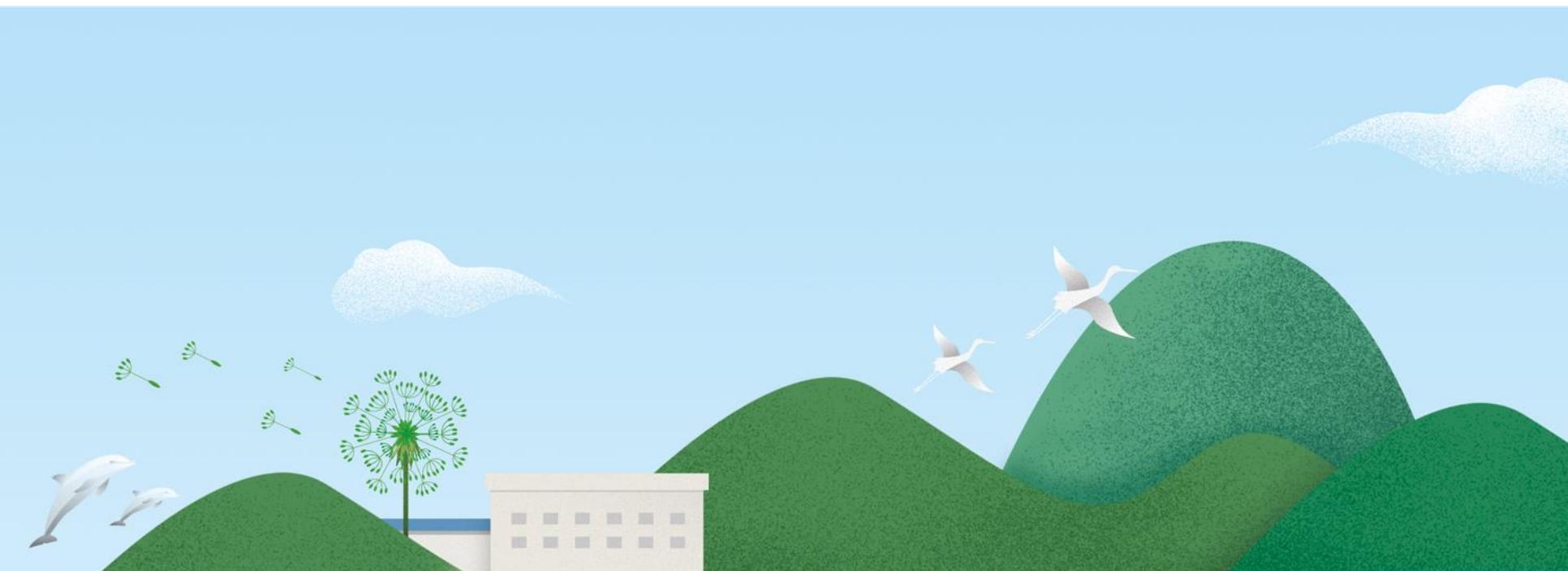
2018	Daya Bay (1)	Yang Jiang	Tai Shan	Ning De	Hong Yanhe	Fang Cheng gang
Discharge liquid radioactive waste (radionuclides other than tritium) as a percentage of the national standards	0.35%	0.29%	0.54%	0.30%	0.21%	0.43%
Discharge gas radioactive waste (inert gases) as a percentage of the national standards	0.56%	0.24%	0.71%	0.30%	0.21%	0.35%
Environment monitoring results	Normal	Normal	Normal	Normal	Normal	Normal

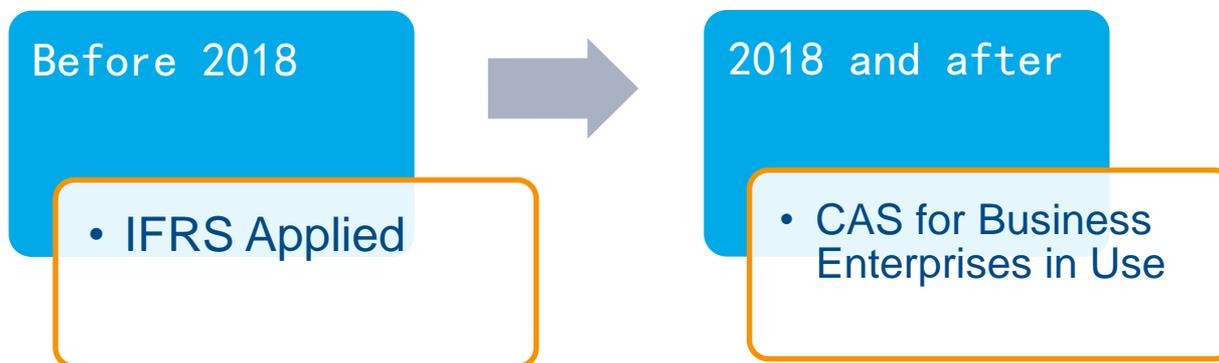


Note1: Daya Bay Unit 1&2, Ling'ao Unit 1&2, Lingdong Unit 1&2 are all included in Daya Bay.

Part III

Financial Performance



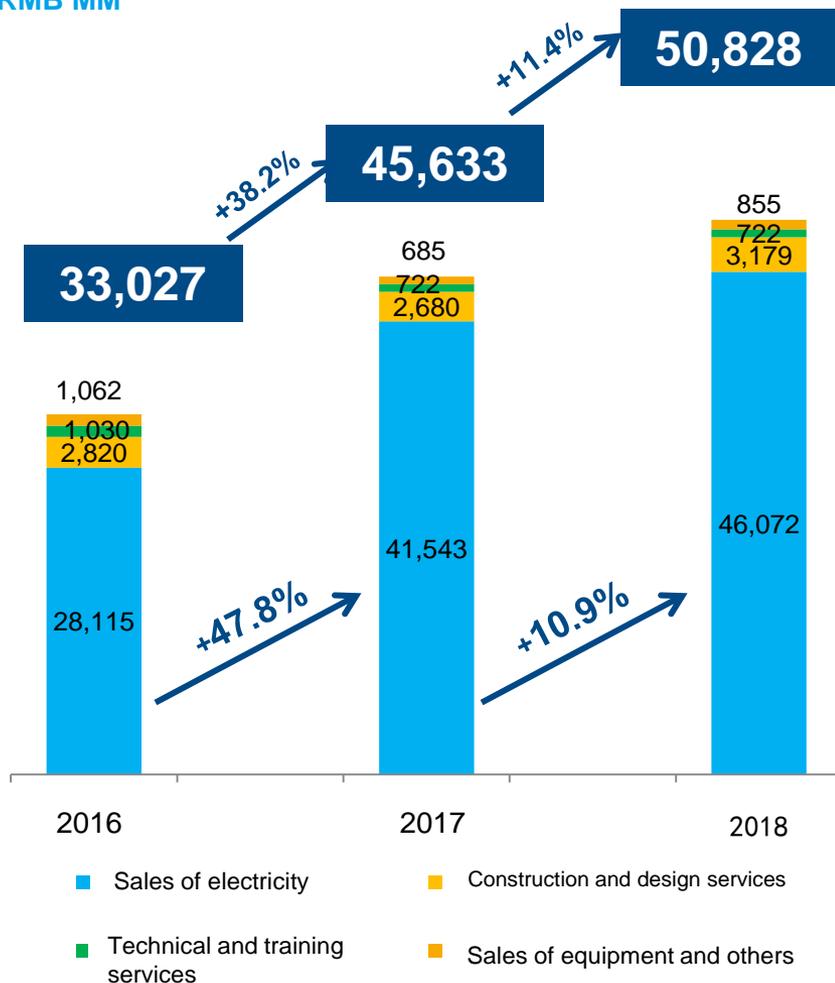


Major items of non-recurring gains and losses

Year	Gains and losses from disposal of non-current assets	Included in 'Government Subsidiaries' in Current P&L	Others
2016	N/A	Included in 'Government subsidiaries' in current P&L	Others
2017	One-time remeasurement gain of Ningde Nuclear became a subsidiary	Included in 'Government subsidiaries' in current P&L	Others
2018	N/A	Included in 'Government subsidiaries' in current P&L	Others

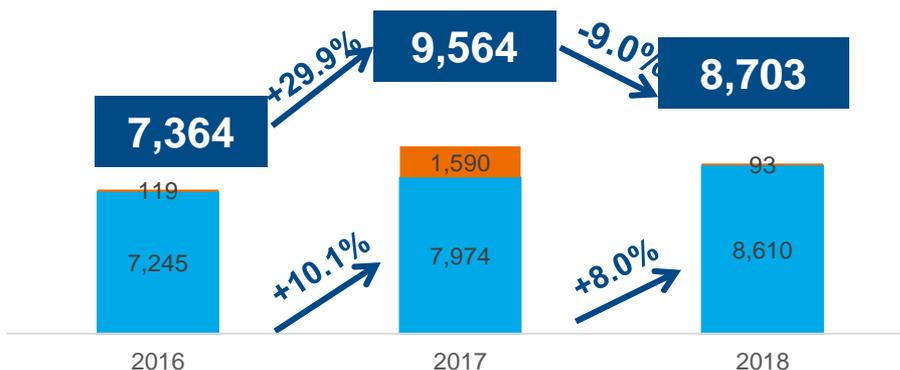
Revenue⁽¹⁾

RMB MM



Profit attributable to shareholders of the parent company

RMB MM



- Non-recurring gains and losses attributable to shareholders of the parent company
- Part excluding non-recurring items

EPS

RMB MM



- Non-recurring gains and losses attributable to shareholders of the parent company
- Part excluding non-recurring items

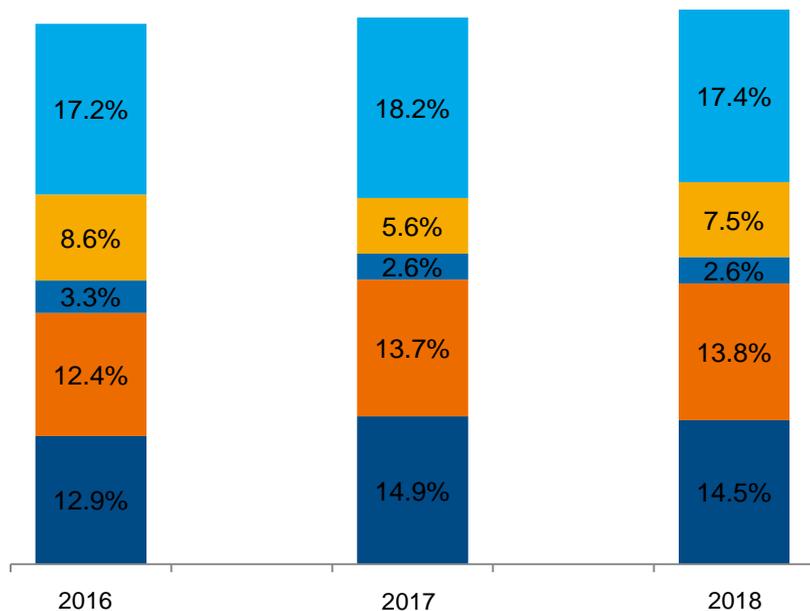
Note 1 : Hongyanhe Nuclear is not included in the consolidated financial statements, therefore the revenue of Hongyanhe plant is not included in the Company's revenue.

Cost as % of Revenue in Main Business

54.4%

55.0%

55.8%

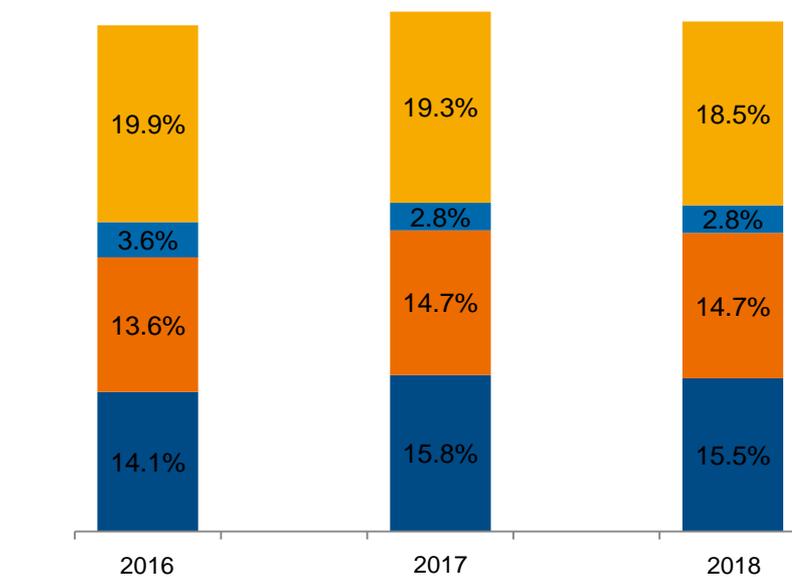


Cost as % of Revenue in Main Business (Excluding construction and design contracts)

51.2%

52.6%

51.5%



■ Cost of fuels

■ Cost of construction and design contracts

■ Depreciation of properties, plants and equipment

■ Others

■ Provision for spent fuel management

■ Cost of fuels

■ Depreciation of properties, plants and equipment

■ Provision for spent fuel management

■ Others

EBITDA⁽¹⁾

RMB MM

18,633

27,690

29,037

234
18,399

1,971
25,719

116
28,921

2016

2017

2018

■ Part excluding non-recurrings ■ Non-recurring gains and losses

ROE (Excluding non-controlling interests)⁽³⁾

12.8%

15.9%

12.8%

0.2%
12.6%

2.6%
13.3%

0.1%
12.7%

2016

2017

2018

■ Part excluding non-recurrings ■ Non-recurring gains and losses

EBITDA margin⁽²⁾

56.4%

60.7%

57.1%

0.7%
55.7%

4.3%
56.4%

0.2%
56.9%

2016

2017

2018

■ Part excluding non-recurrings ■ Non-recurring gains and losses

ROA⁽⁴⁾

5.0%

6.4%

5.8%

0.1%
4.9%

0.6%
5.8%

0.0%
5.8%

2016

2017

2018

■ Part excluding non-recurrings ■ Non-recurring gains and losses

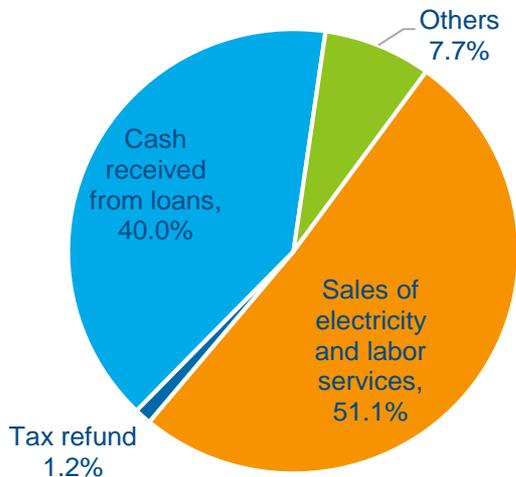
Note 1: EBITDA=Total profit + Interest expenses recognized in profit or loss + Depreciation and amortization

Note 2: EBITDA margin= EBITDA/Operating revenue * 100%

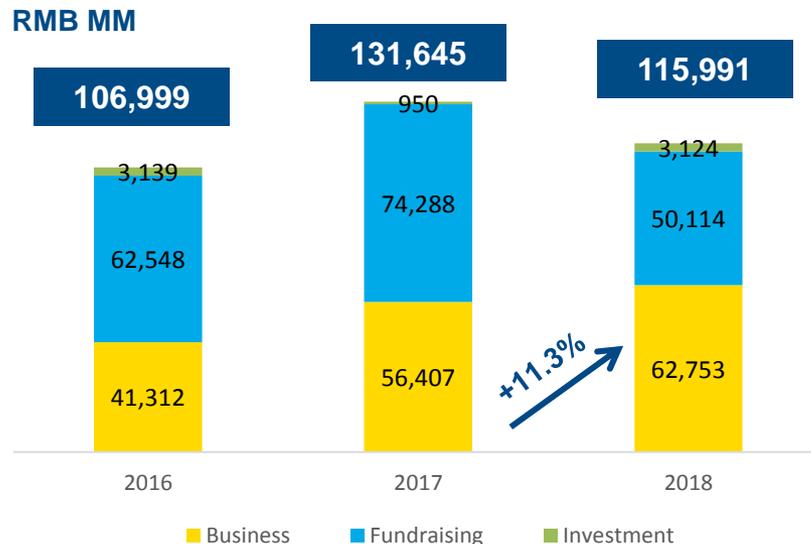
Note 3: ROE(Excluding non-controlling interests)= Net profit attributable to shareholders of the parent company/Average equity attributable to shareholders of the parent company (the arithmetic mean of the opening and closing balances) * 100%

Note 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%

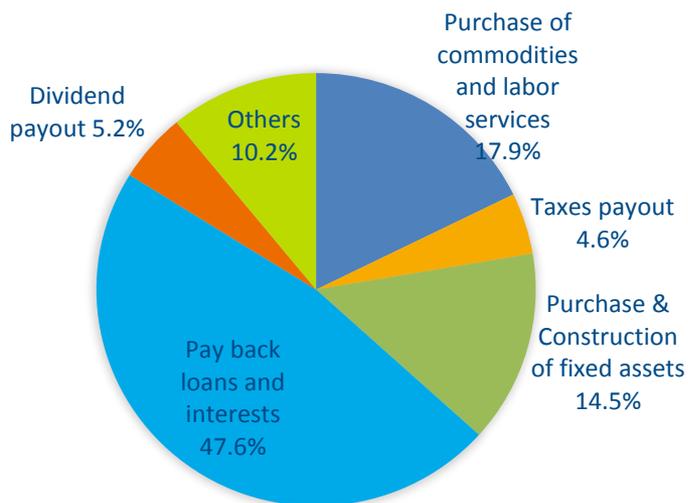
Cash inflow Structure in 2018



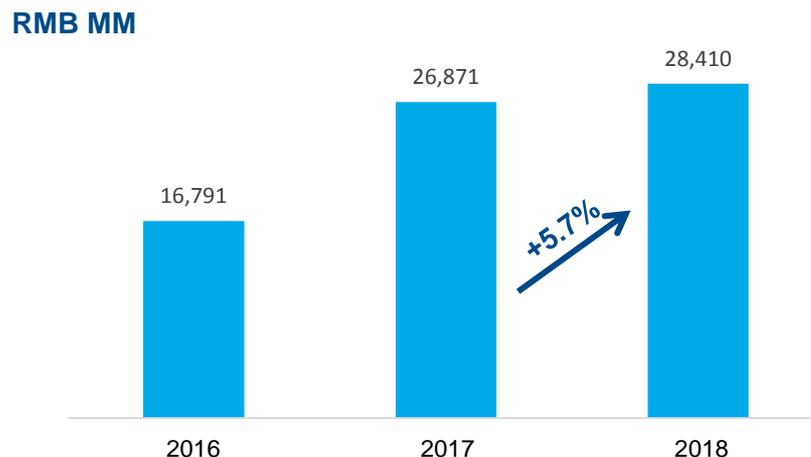
Cash inflow in past 3 years



Cash outflow Structure in 2018

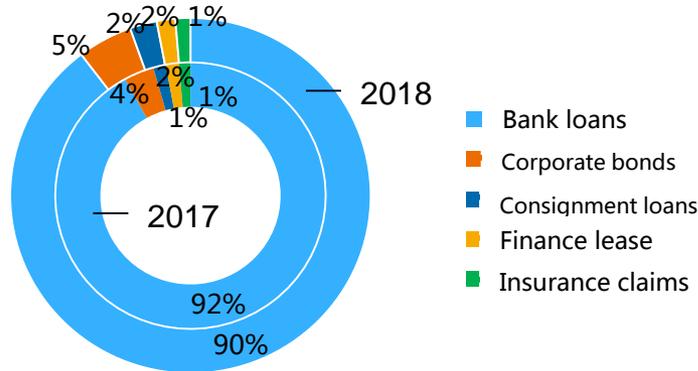


Net operating cash flow in past 3 years

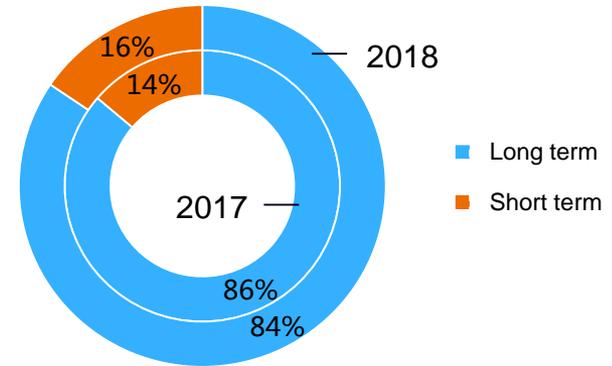


The company follows the principle of considering both cost and security, ensures financing security and controlling financing costs through building solid debt structure.

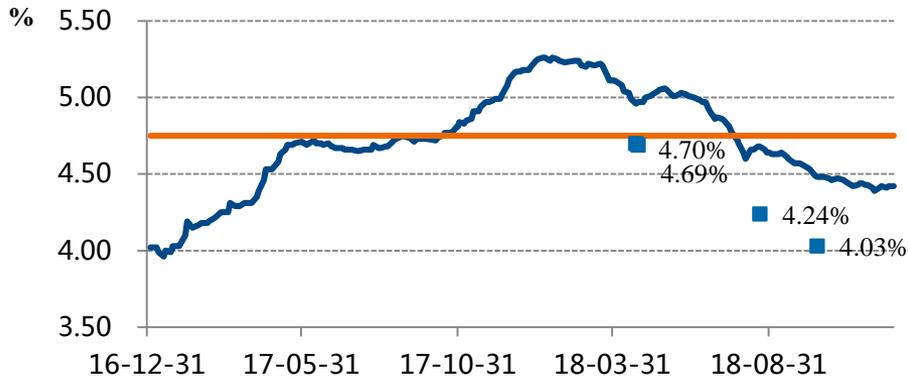
Debts are mainly from bank loans



Long-term debt predominates

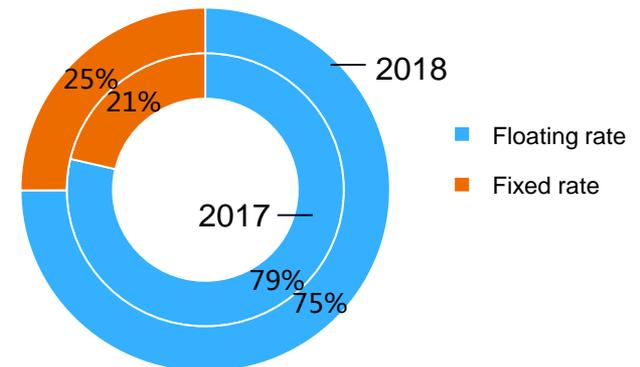


The company issued 4 Billion MTNs in 2018 at a proper interest.



— Valuation of dealers association: AAA:3 years — Benchmark loan rate: 1-5 years (including)
 ■ Interest rate of MTNs issued by the company

Appropriate structure built to optimize the balance of floating rate and fixed rate debt

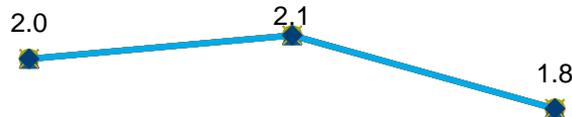


Asset to Liability Ratio



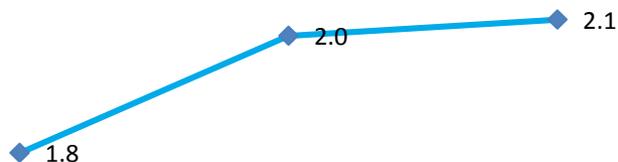
2016 2017 2018

Debt to Equity Ratio



2016 2017 2018

Interest Coverage



2016 2017 2018

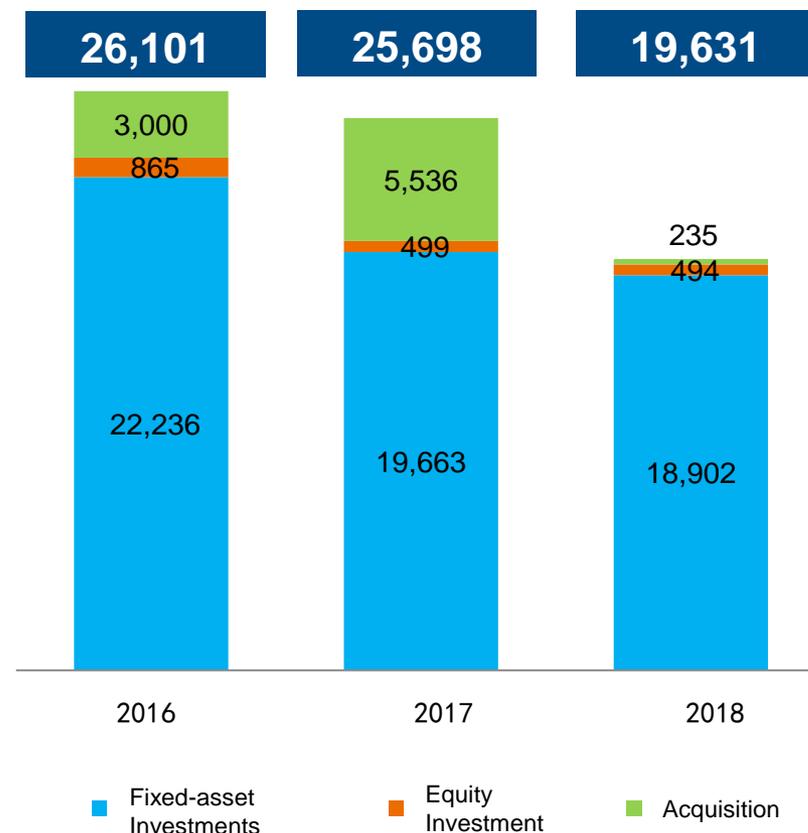
Note1 : Asset to debt ratio=(Total liabilities / Total assets)*100%

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

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

Capital Expenditure

RMB MM



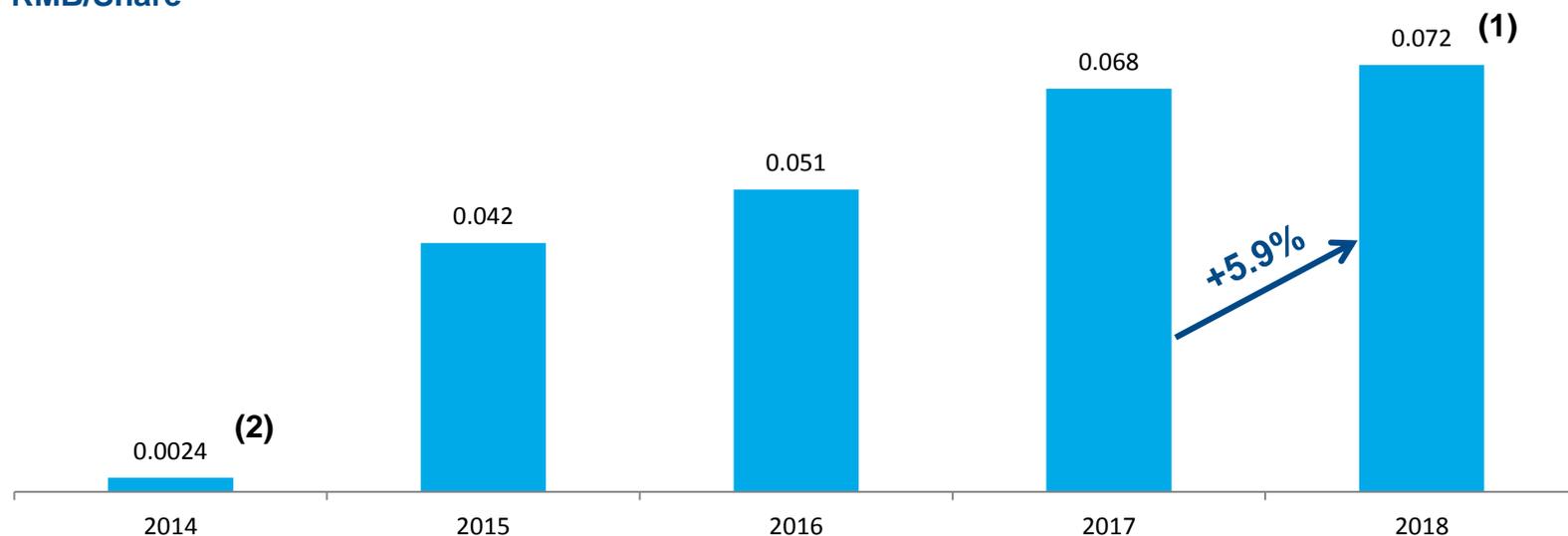
2016 2017 2018

■ Fixed-asset Investments ■ Equity Investment ■ Acquisition

The Board and management attach great importance to the safe and stable operation of nuclear power generating units and strive to achieve the stable growth of the Company's overall operation. **The Company will provide a reasonable growing dividend per share during 2018-2020 based on 2017 level, and will provide a long term steady and reasonable growing dividend returns.**

Realized Continuous Dividend Growth Since Listed

RMB/Share



Note 1: Subject to approval at the 2019 first EGM which will be convened on April 23, 2019.

Note 2: Dividend period of 2014 was from 10th Dec to 31st Dec.

中广核  CGN

中國廣核電力股份有限公司
CGN Power Co., Ltd.

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Thanks!

