

中广核  CGN

严 · 慎 · 细 · 实

中国广核电力股份有限公司
CGN Power Co., Ltd

2022 Annual Results



01816. HK
003816. SZ

Disclaimer

Potential investors, analysts and shareholders of CGN Power and other recipients of this document are reminded that this document and any oral discussion made together with this document (the presentation) are provided for your information purposes only and you may not forward, publish, distribute, release or disseminate any part of the presentation directly or indirectly to any other person. This presentation does not constitute a public offer for the purposes of any applicable law or an offer to sell or solicitation of any offer to purchase any securities or other financial instruments or any recommendation in respect of such securities or instruments.

It is important to note that the contents of the presentation have not been audited or independently verified. Some comments, including comments relating to future events and our expectations about the performance, are based on a number of factors that we cannot accurately predict or control. We cannot provide any assurance that the information contained in the presentation is or will be accurate or complete and so they should not be relied on. We assume no liability whatsoever for any loss howsoever arising from use of, or in connection with, any of the information and data contained in this presentation.

From time to time as circumstances change, we may update the Hong Kong Stock Exchange and Shenzhen Stock Exchange and update our website at www.cgnp.com.cn when relevant to comply with the supervision and administration regulations.

By attending or reading this presentation, you will be deemed to have agreed to the terms, obligations and restrictions set out herein.



Contents

01

Development Strategy

02

**Business Review and
Future Outlook**

03

Financial Review

Part I Development Strategy





CGN Power

Core Business: We design, build, operate and manage nuclear power plants (NPPs), sell electricity generated by our NPPs, and organize R&D of NPPs.

CGN Power has issued 50.5 billion shares and our controlling shareholder is CGN (supervised by SASAC of the State Council).



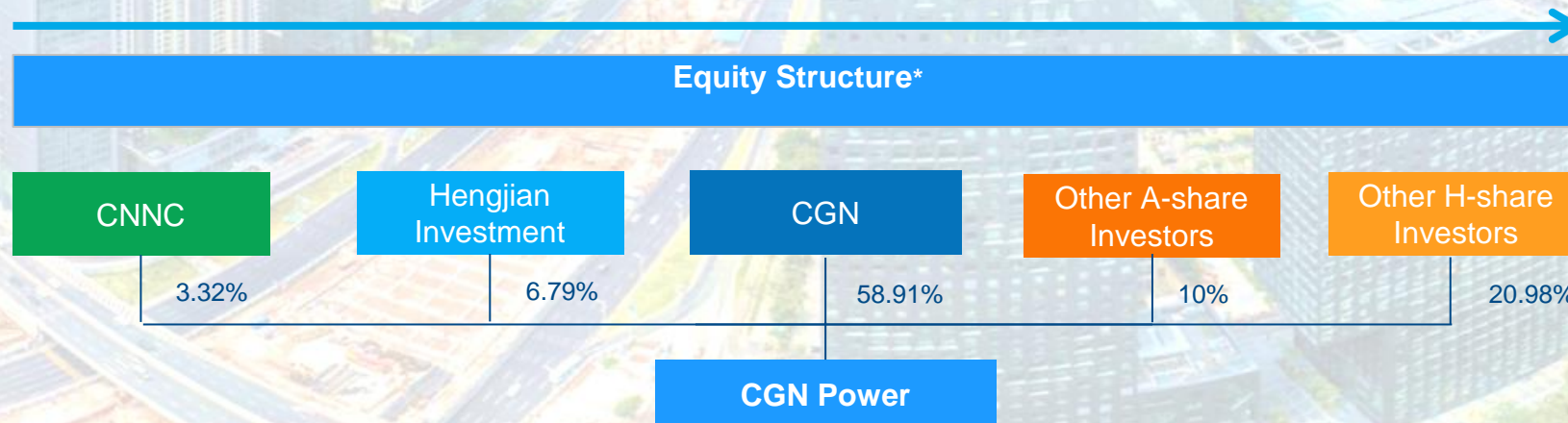
Incorporated on
March 25, 2014



H-share IPO on
December 10, 2014



A-share IPO on
August 26, 2019



*: As of December 31, 2022

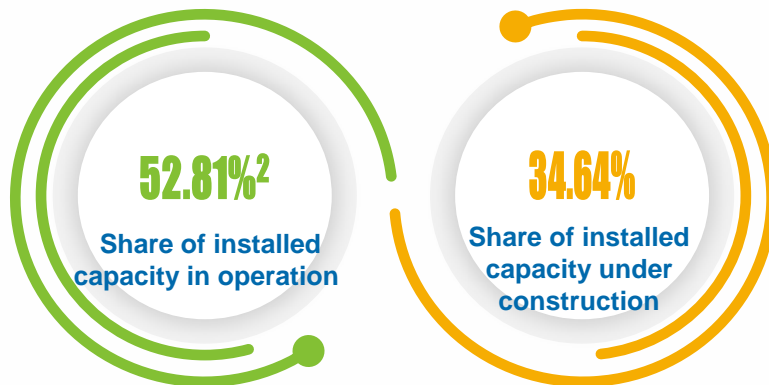
Share of Installed Capacity

Units in operation

- 26 units
- Installed capacity : 29.38GW

Units under construction¹

- 7 units
- Installed capacity : 8.38GW



9 Bases

Guangdong	Daya Bay	
	Yangjiang	
	Taishan	
	Lufeng	
	Huizhou	
Guangxi	Fangcheng gang	
Fujian	Ningde	
Liaoning	Hongyanhe	
Zhejiang	Cangnan	

- 1000MW(installed capacity) unit in operation
- 1750MW(installed capacity) unit in operation
- 1000MW(installed capacity) unit under construction

Note 1: Units under construction include Huizhou Unit 1, Unit 2 and Cangnan Unit 1, Unit 2, which were entrusted to us by our controlling shareholder for management.

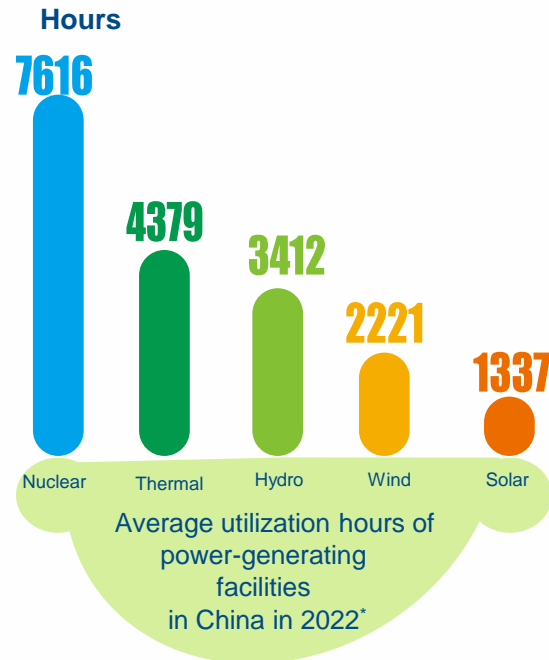
Note 2: Statistics only include the Chinese mainland and as of December 31, 2022.

Key Stats of 2022



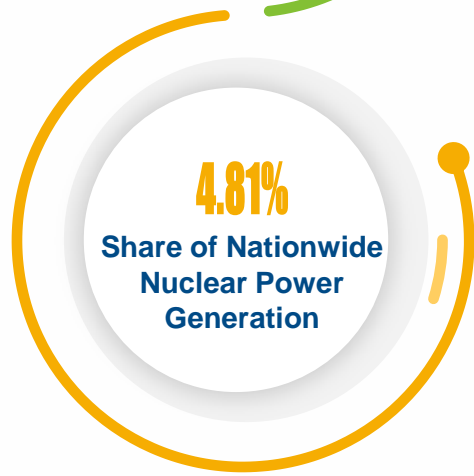
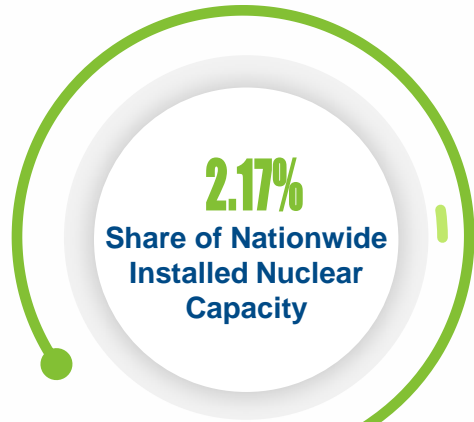
01	On-grid power generation	• 198,375 Gwh (subsidiaries and associates)	-1.38%
		• 156,461 Gwh (subsidiaries)	-4.55%
02	Revenue	• RMB 82,822M	+2.66%
03	Net Profit Attributable to Shareholders of the Parent Company	• RMB 9,965M	+2.06%(Restated)
04	Net Profit Attributable to Shareholders of the Parent Company (Excluding Non-Recurring Gains or Losses)	• RMB 9,770M	+0.09%(Restated)

Unique Advantages of Nuclear Power



*: Statistics from the Briefings on the Operation of the National Power Industry 2022 published by the China Electricity Council

Share of nationwide nuclear power generation and installed capacity* in 2022



Chinese and global energy industry is shifting towards green and low-carbon development, and China strives to achieve carbon dioxide emissions peaking before 2030 and carbon neutrality before 2060, which provides us with broad prospects of nuclear power development.

Report on the Work of the Government (March 5, 2022)

We will take well-ordered steps to achieve peak carbon emissions and carbon neutrality. We will ensure energy supply and push forward the transformation toward low-carbon development.

State Council

Guiding Opinions on Energy Work for 2022 (March 17, 2022)

Taking active and well-ordered steps to promote the approval for construction of new coastal NPP projects on the premise of ensuring its safety.

NEA

Report to the 20th National Congress of the CPC (October 16, 2022)

Working actively and prudently toward the goals of carbon peaking and carbon neutrality. Based on China's energy and resource endowment, we will advance initiatives to reach peak carbon emissions in a well-planned and phased way in line with the principle of building the new before discarding the old. **Developing nuclear power in an active, safe and orderly manner.**

National Energy Work Conference (December 30, 2022)

Ensuring energy security, and promoting green development unswervingly. **Developing nuclear power in a safe and orderly manner.**

National policies to support nuclear power development

*: Statistics from the Briefings on the Operation of the National Power Industry 2022 published by the China Electricity Council, excluding Taiwan.

Vision

A world-class nuclear power supplier and service provider with international competitiveness

- Robust business, achieving stable performance in operations and high-quality commercial operations of construction projects
- Financial stability, ensuring capital security, and stable operating performance
- Stable returns, keeping promises and maintaining long-term stable dividend payout

Purpose

Continuing to create value for our customers, shareholders, employees and the society

- Keeping improving safety performance by benchmarking against world-class standards
- Adopting "centralization, specialization, and standardization" (CSS) strategy to enhance multi-unit management and control
- Implementing lean management, reasonably controlling project construction costs and optimizing O&M costs



- Dedicated to developing clean energy, focusing on nuclear power and comprehensive use of nuclear energy
- 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 good momentum
- Actively developing and mastering new nuclear power technologies to maintain sustainable development
- Strengthening commercialization and promotion of research results to increase business opportunities where appropriate
- Developing energy storage projects related to nuclear power as appropriate and expanding nuclear heating services and etc.



14th Five-Year

- ✓ Focusing on the five first-class goals in respect of safety, quality and environmental protection, project construction, technology innovation, operational efficiency, and corporate management;
- ✓ Hongyanhe Unit 5&6 have been put into operation. We will push forward the quality commercial operation of Fangchenggang Unit 3&4 and Huizhou Unit 1 as planned;
- ✓ Striving to commence the construction of 2 to 3 new units every year.



By 2035

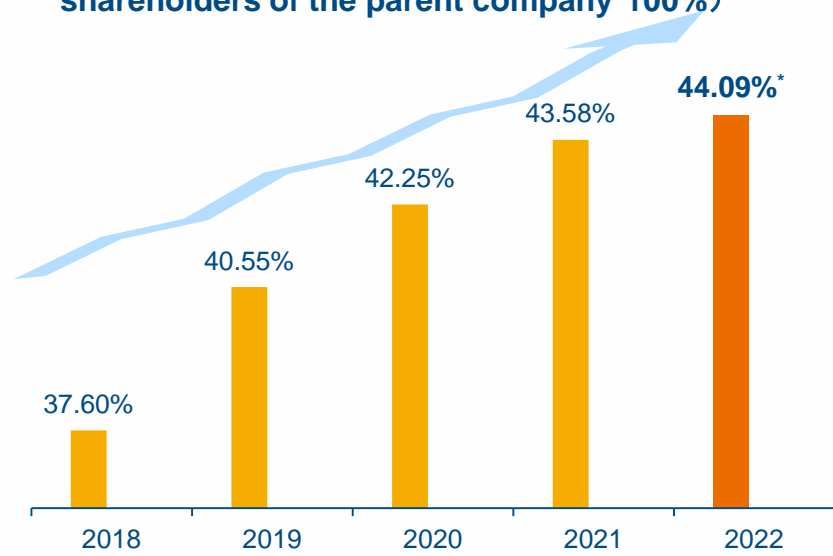
- ✓ Becoming a world-class nuclear energy company with international competitiveness;
- ✓ Achieving excellence in key performance indicators such as safe operation, project construction and operating efficiency with remarkable benefits of comprehensive nuclear energy utilization.



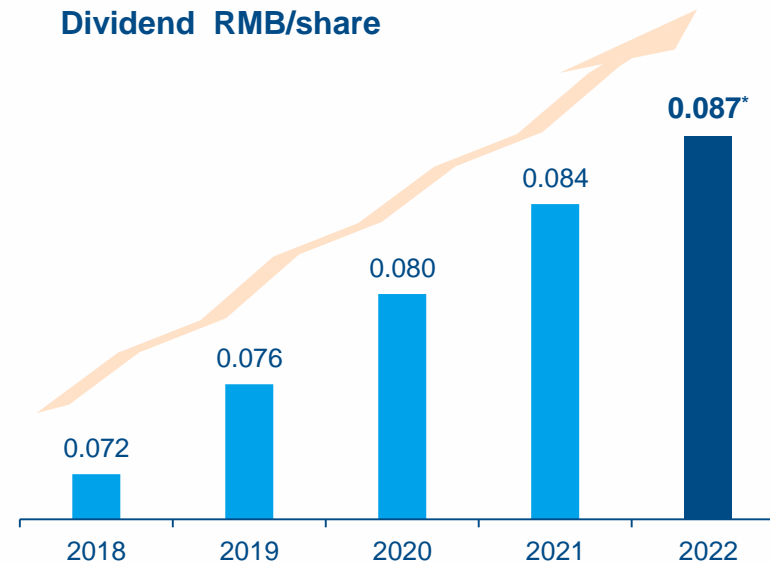
Dividend Distribution Plan for 2021-2025

On the preconditions that there are no significant changes and approval is obtained from AGM of the relevant fiscal year, the Company aims to achieve a reasonable increase in the annual dividend ratio from 2021-2025 based on the dividend ratio in 2020 (42.25%).

Dividend Ratio (total dividends/net profit attributable to shareholders of the parent company*100%)



Dividend RMB/share



*: Dividend of 2022 is subject to approval by 2022 AGM and is expected to be distributed in July 2023.

Part II Business Review and Future Outlook

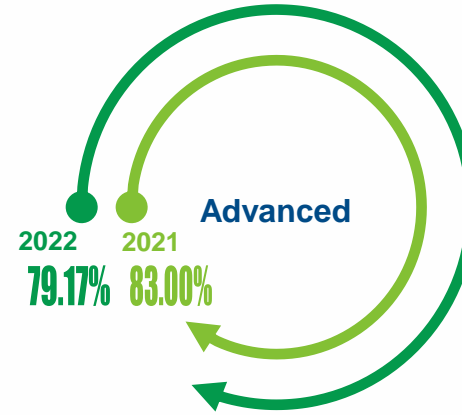


Nuclear safety is the cornerstone of the company's survival and development

Senior Management on site



The ratio of WANO¹ indicators achieving the world's advanced and excellent level remained leading among peers²



Achieving the world's top 1/4 level



Achieving the world's top 1/10 level

0

No International Nuclear Event Scale(INSE) incidents at level 2 or above occurred

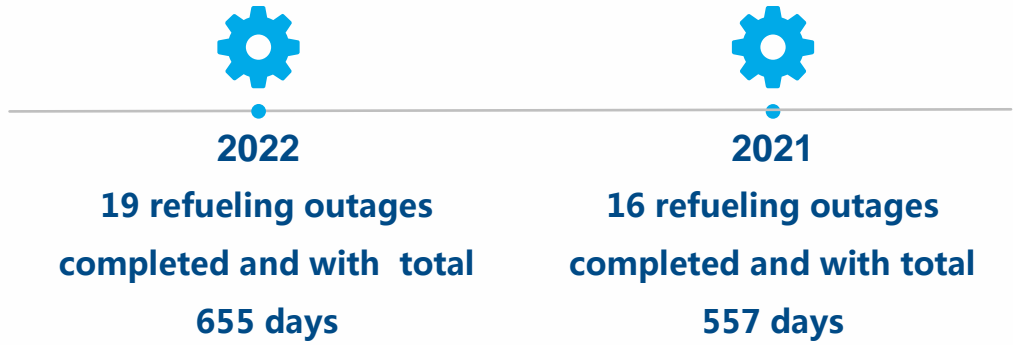
6000 days

As of March 16, 2023, Ling'ao Unit 1 has been operating continuously and safely for 6000 days

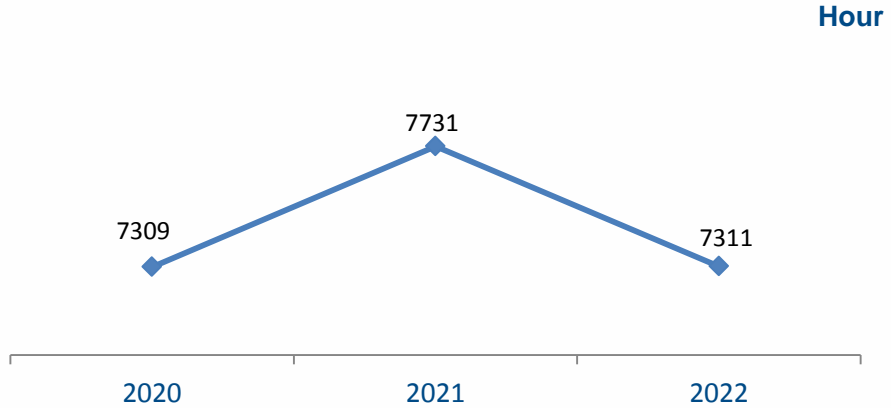
Note1:WANO-World Association of Nuclear Operators, WANO organizations, through their members, use them to formulate internationally common performance indicators for unified management and coordination, which is conducive to strengthening the exchange of nuclear power technology, experience and accident information to continuously improve the safety and reliability of NPPs in the world.

Note 2:The statistics of 2022 include 26 units. The statistics of 2021 include 25 units.

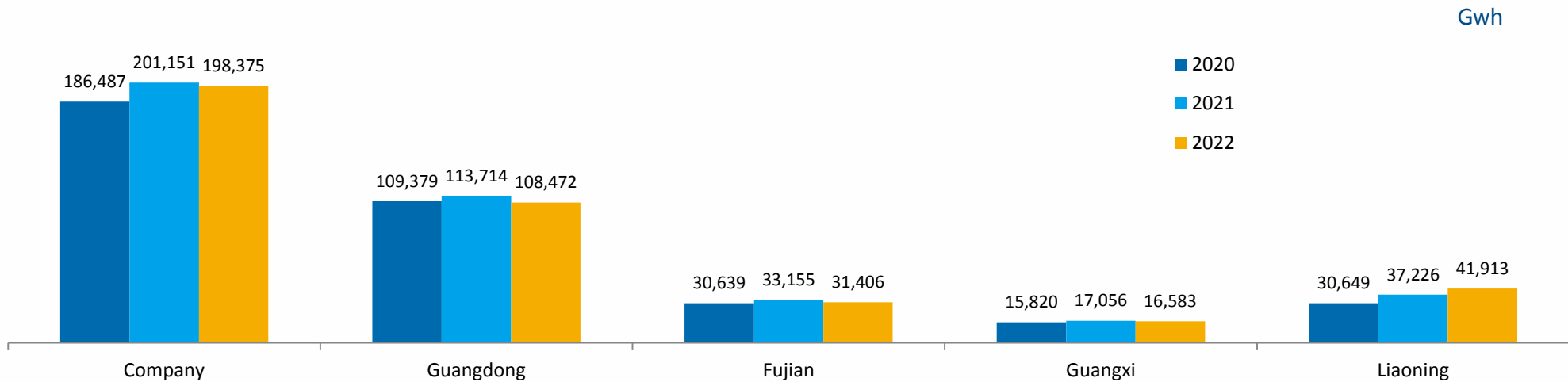
Refueling Outages

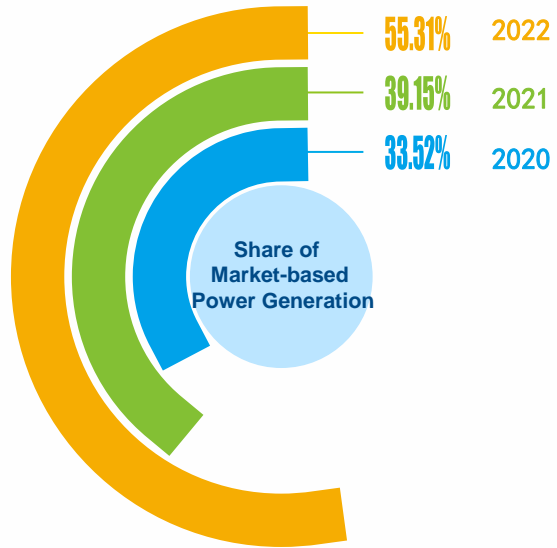


Average Utilization Hours



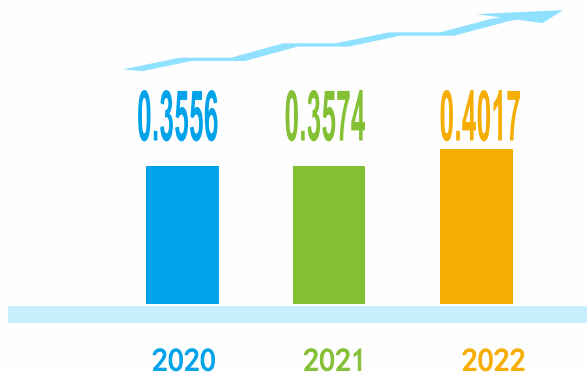
On-grid Power Generation in Total and by Region





Average Market-based Power Tariff (Tax inclusive)

RMB/kwh



Guang dong

- ◆ 10 units of Ling'ao, Lingdong and Yangjiang participate in market transaction
- ◆ 32.13 billion kwh market-based power , accounting for 33.4%
- ◆ Average market-based power tariff(tax inclusive) was 0.4237 RMB/kwh

Guangxi








- ◆ Fangchenggang Unit1-2 participate in market transaction
- ◆ 16.58 billion kwh market-based power , accounting for 100%
- ◆ Average market-based power tariff(tax inclusive) was 0.4105 RMB/kwh

Fujian

- ◆ Ningde Unit 1-4 participate in market transaction
- ◆ 31.41 billion kwh market-based power , accounting for 100%
- ◆ Average market-based power tariff(tax inclusive) was 0.3974 RMB/kwh

Liaoning

- ◆ Hongyanhe Unit1-4 have participate in market transaction
- ◆ 29.60 billion kwh market-based power , accounting for 70.6%
- ◆ Average market-based power tariff(tax inclusive) was 0.3773 RMB/kwh

Units	Civil Construction	Equipment Installation	Commissioning	Grid Connection	Expected COD
<u>Fangchenggang Nuclear</u>					
Unit 3					2023H1
Unit 4					2024H1
<u>Lufeng Nuclear</u>					
Unit 5					2027
<u>Huizhou Nuclear*</u>					
Unit 1					2025
Unit 2					2026
<u>Cangnan Nuclear*</u>					
Unit 1					2026
Unit 2					2027

Progress as of December 31, 2022.

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.

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.

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

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.

*:Huizhou Unit 1, Unit 2 and Cangnan Unit 1, Unit 2 are managed by the Company as entrusted by the controlling shareholder.

Technological R&D

- Technical specifications designed by China are launched, creating Chinese standards for safety operation of nuclear power;
- The "Wukong" robot helps repair of generator rotor, improving safety and efficiency of outages;
- Using AR head-mounted display effectively reduces the working hours through intelligent prompt of required tools and O&M procedures;
- China's first "diagnosis system of personnel status" enables intelligent management of human-caused potential hazards.



Comprehensive Use of Nuclear Energy

- Hongyanhe nuclear bases provide clean nuclear heating to the neighboring areas;
- Obtained the controlling development rights of two pumped storage projects in Guangdong province;
- Equity participation in an approved pumped storage project, the main works of which have started construction;
- Building a large-scale nuclear storage complementary electrochemical energy storage demonstration project in collaboration with others.



With heating, the temperature in the classroom of Honghe Hope

Middle School in Hongyanhe Town is 26 °C

ESG: Environmental, Social and Governance



ESG promotes sustainable development, focusing on environmental, social and governance standards. Aligned with the philosophy of new development in China, ESG has become one of the most important development directions in the global responsible investment.

ESG is highly aligned with the management philosophy of CGN Power



*: IIGF is the abbreviation of International Institute of Green Finance, Central University of Finance and Economics



In 2022, a total annual on-grid power generation of 198,375 GWh, equivalent to **0.45 million hectares** of forest



Standard Coal Consumption Reduction 

approximately 59.81 million tons

CO₂ Emission Reduction 

Approximately 164.2543 million tons



SO₂ 

SO₂ Emission Reduction

approximately 20,000 tons

NO_x 

Oxynitride Emission Reduction

approximately 30,200 tons



ESG

Sound Governance System
Proactive Information Disclosure
Transparent Public Communication
Active Public Service



- ✓ **499** reactor operators
- ✓ **961** senior reactor operators
- ✓ **144** employees obtain the qualification for fuel operators

ESG Awards



Safety First
Quality Foremost
Pursuit of Excellence

Main tasks in 2023



01 To further develop safety system and ensure absolute safety in nuclear development



02 To push forward construction of units as planned, achieve commercial operation of F3



03 To maintain safe and stable operation and conduct 19 refueling outages



04 To follow the market changes closely and strengthen marketing capabilities



05 To develop the cradle of new technologies and strengthen transformation of research results



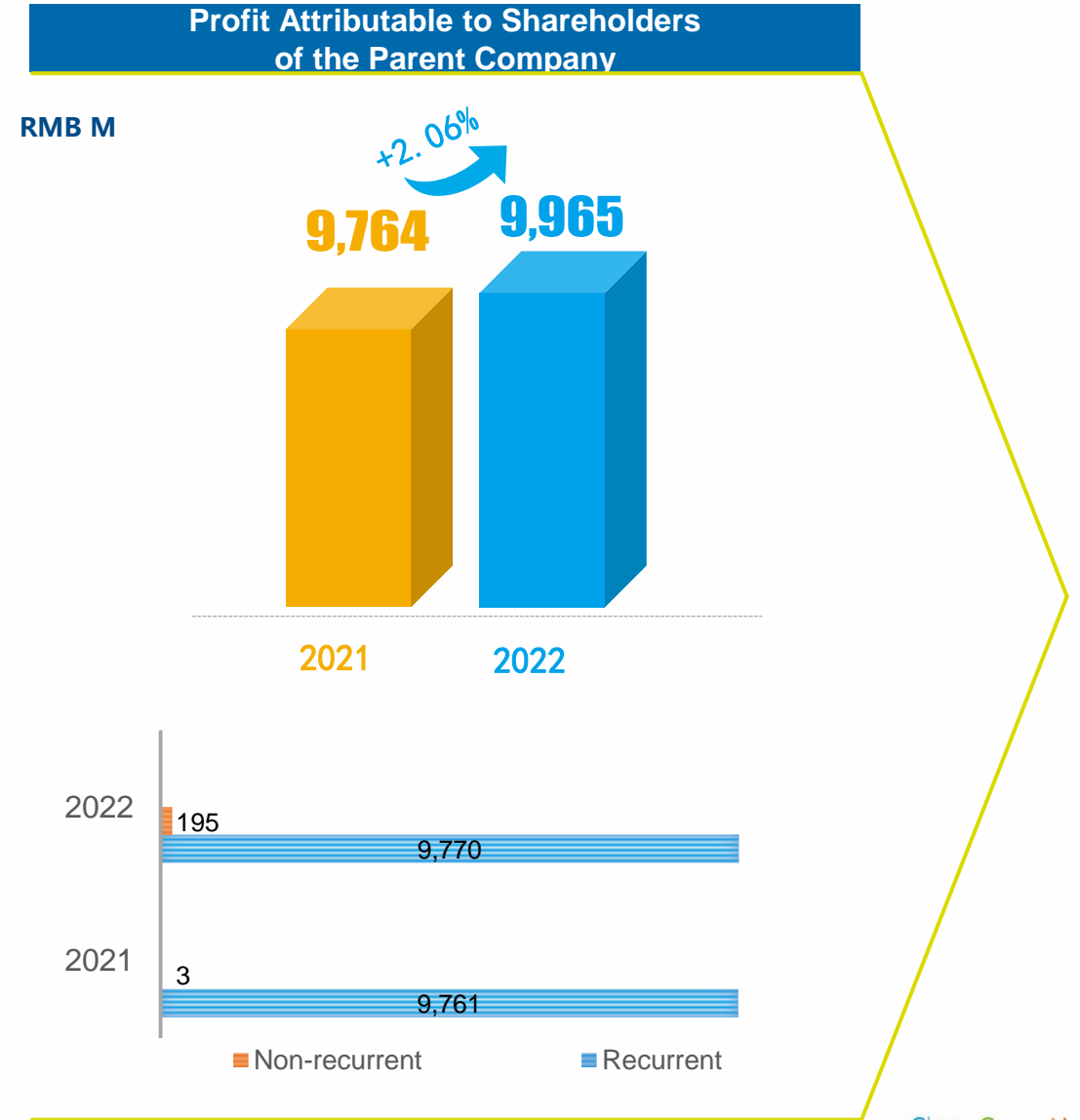
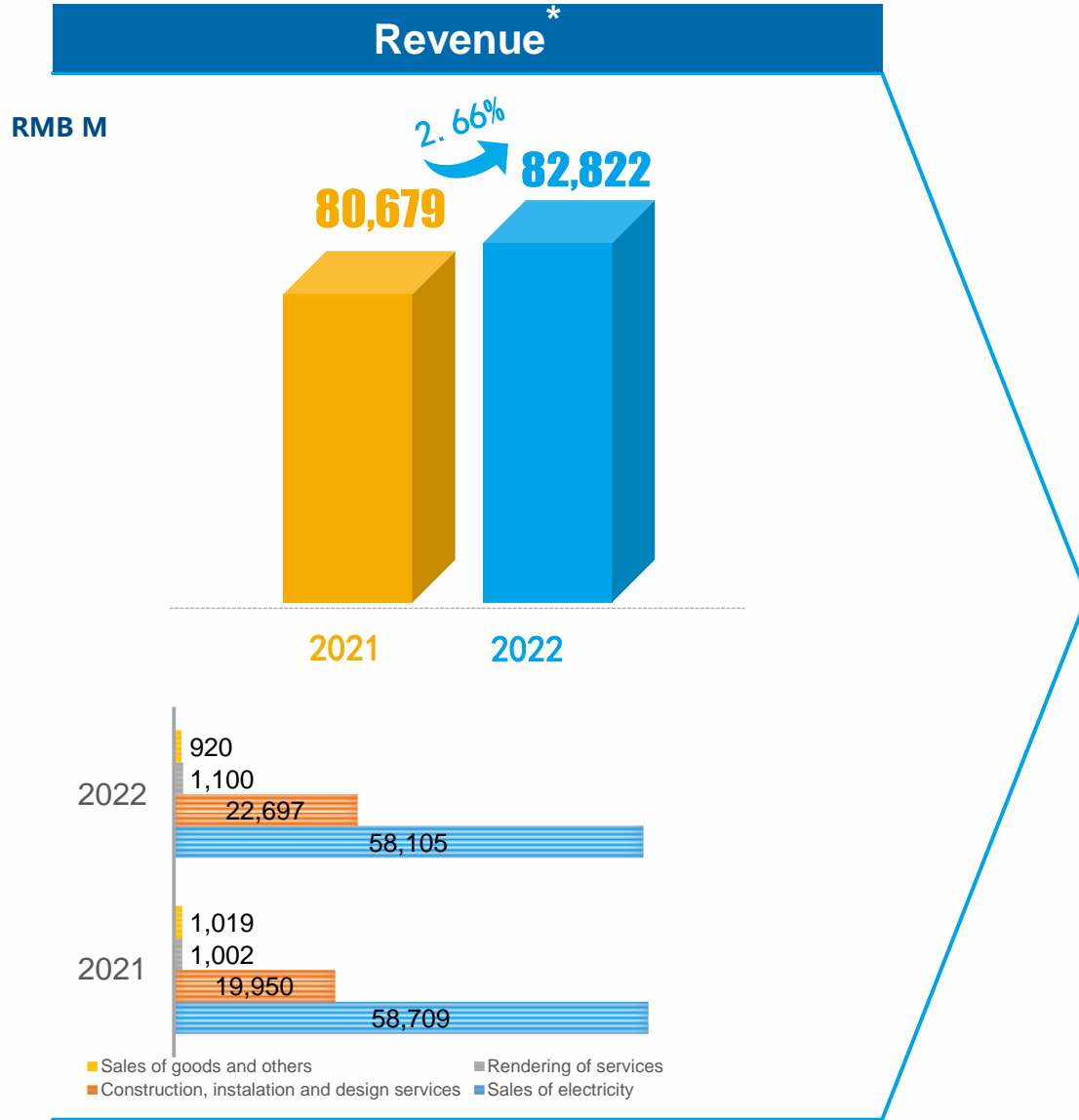
06 To strengthen implementation of CSS strategy and lean management



07 To follow changes in external environment and ensure stable development of the company

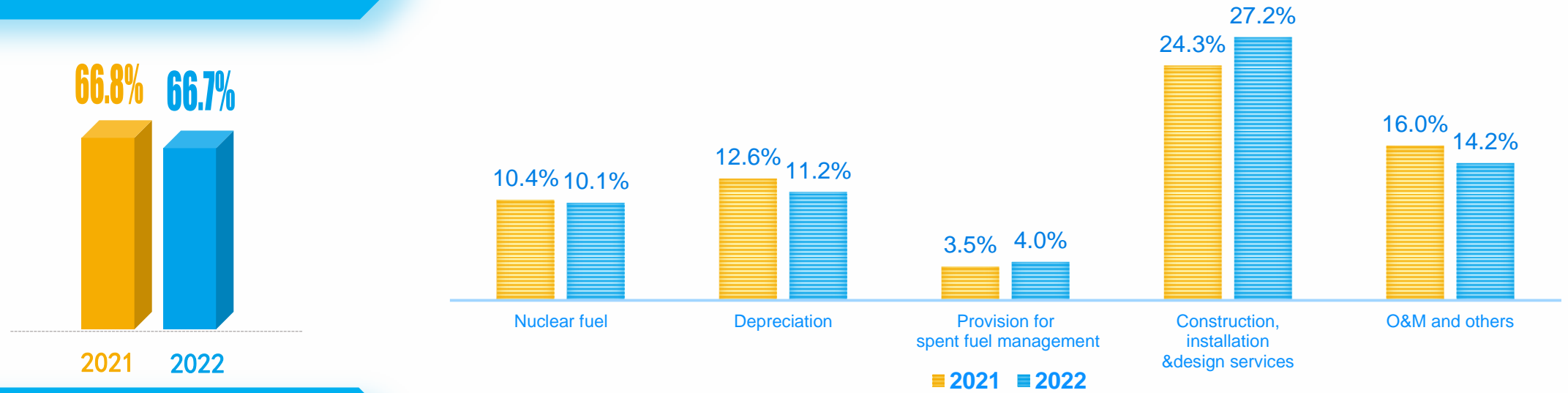
Part III Financial Review



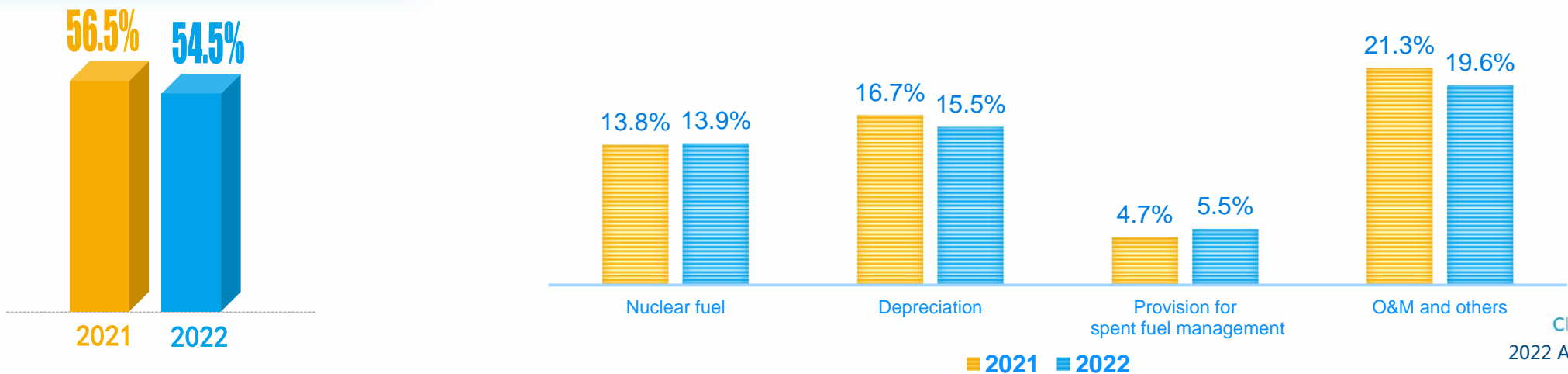


* : Hongyanhe Nuclear is not included in the consolidated financial statements, therefore the revenue of Hongyanhe Nuclear is not included in the Company's revenue.

Cost as % of Revenue

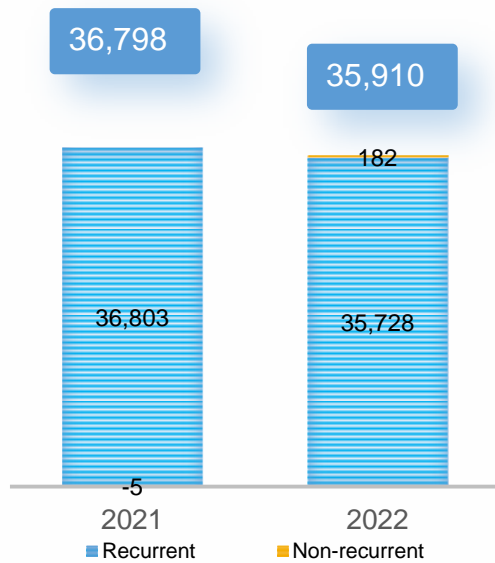


Cost as % of Revenue
(Excluding Construction, Installation and Design Services)

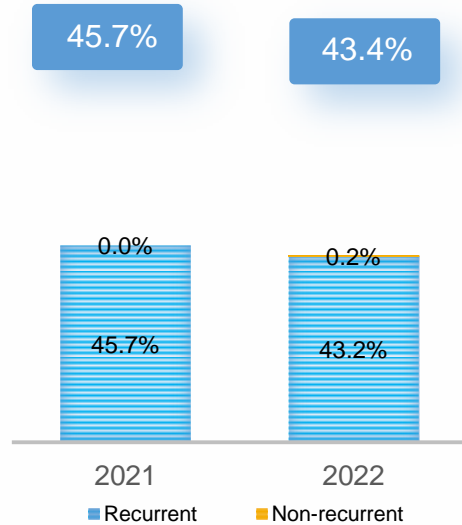


EBITDA¹

RMB M

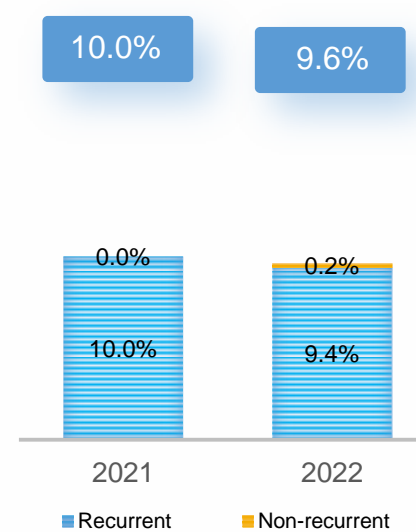


EBITDA Margin²

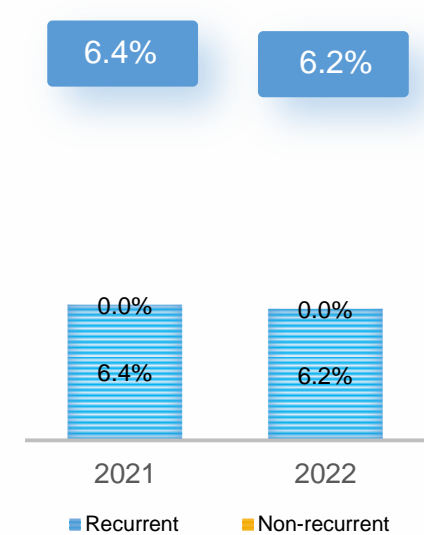


ROE³

Excluding Non-controlling Interests

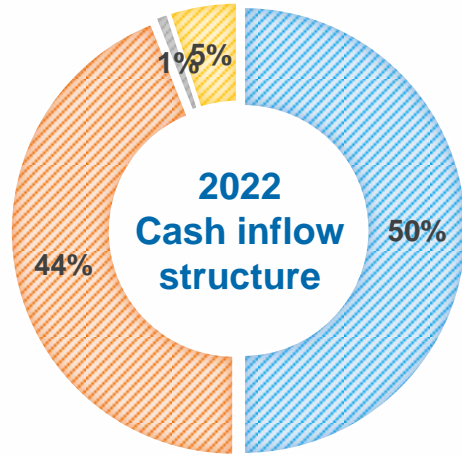


ROA⁴

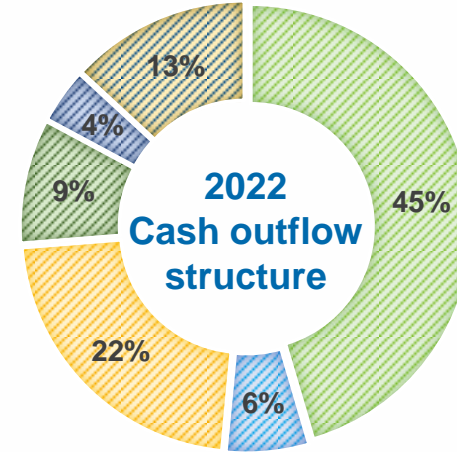


Note 1: EBITDA=Total profit + Interest expenses recognized in profit or loss + Depreciation and amortization
 Note 2: EBITDA margin= EBITDA/Revenue * 100%
 Note 3: ROE(Excluding non-controlling interests)= Net profit attributable to shareholders of the parent company/Average equity attributable to shareholders of the parent company (the arithmetic mean of the opening and closing balances) * 100%
 Note 4: ROA= (Total profit + Interest expenses recognized in profit or loss)/Average total assets (the arithmetic mean of the opening and closing balances) * 100%

Note 2: EBITDA margin= EBITDA/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= (Total profit + Interest expenses recognized in profit or loss)/Average total assets (the arithmetic mean of the opening and closing balances) * 100%



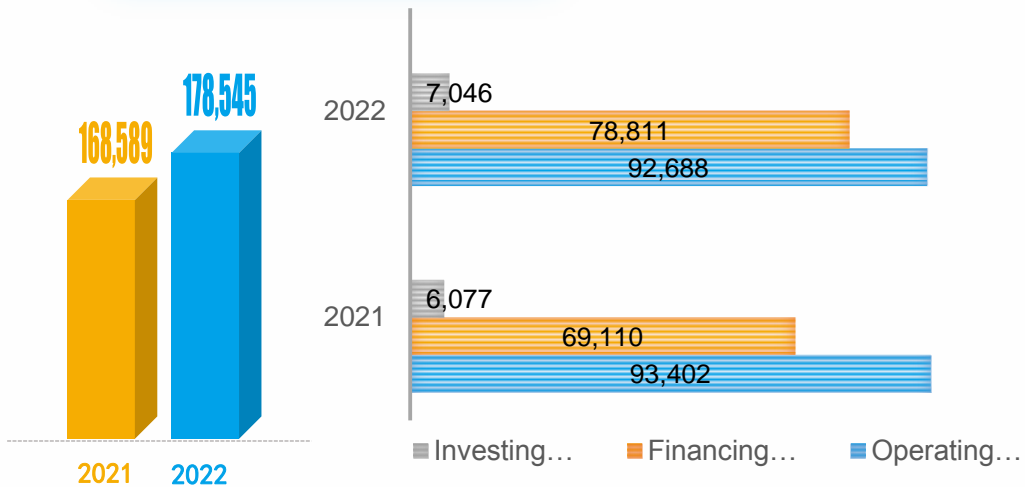
- Sales of electricity & construction, installation and design services
- Cash received from loans
- Tax refund
- Others



- Pay back loans
- Fixed assets
- Purchase and labor services
- Dividend and interests payment
- Taxes payout
- Others

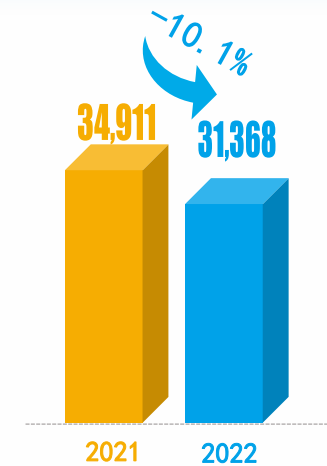
Cash inflow in 2022

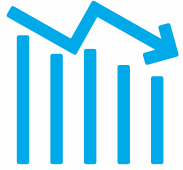
RMB M



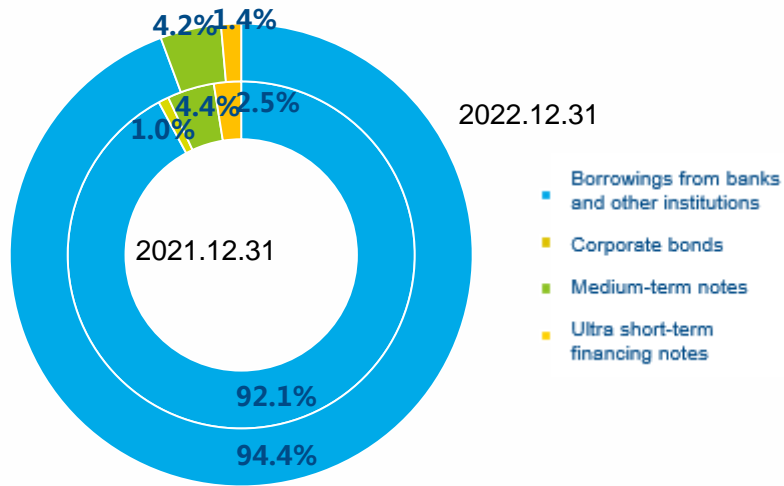
Net Operating Cash Flow in 2022

RMB M

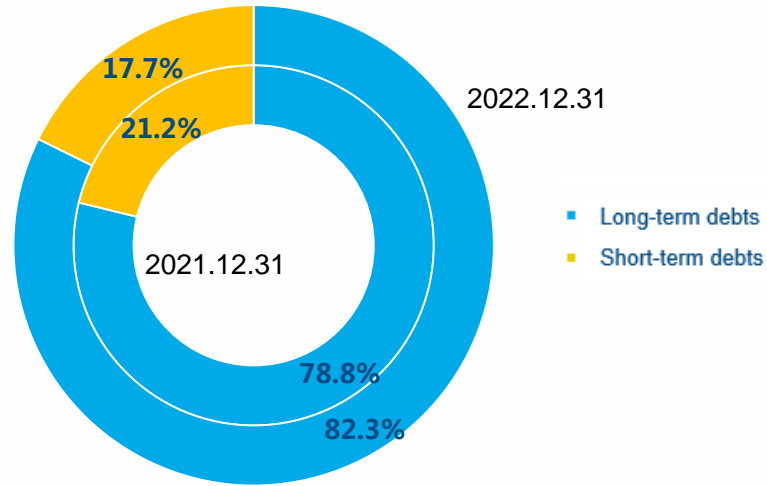




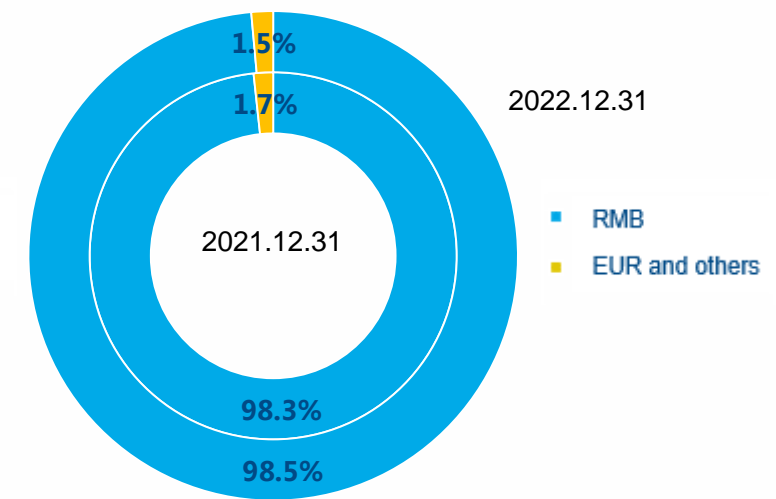
In 2022, the company seized the opportunity to issue six tranches of ultra short-term financing notes and one tranche of medium-term note, raising a total of 9.9 billion yuan. The company also carried out long-term bank borrowings restructuring, thereby effectively reducing financing costs. Average financing costs in 2022 fell by about 24BP from the same period last year.



Debts are mainly from bank borrowings

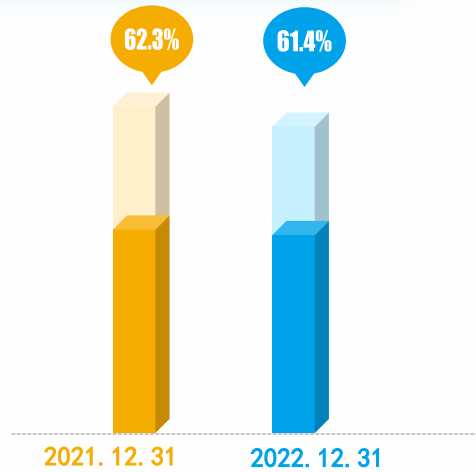


Long-term debt predominates

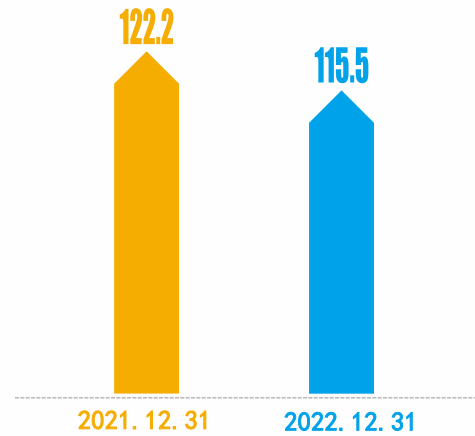


RMB debt predominates

Asset-Liability Ratio %¹

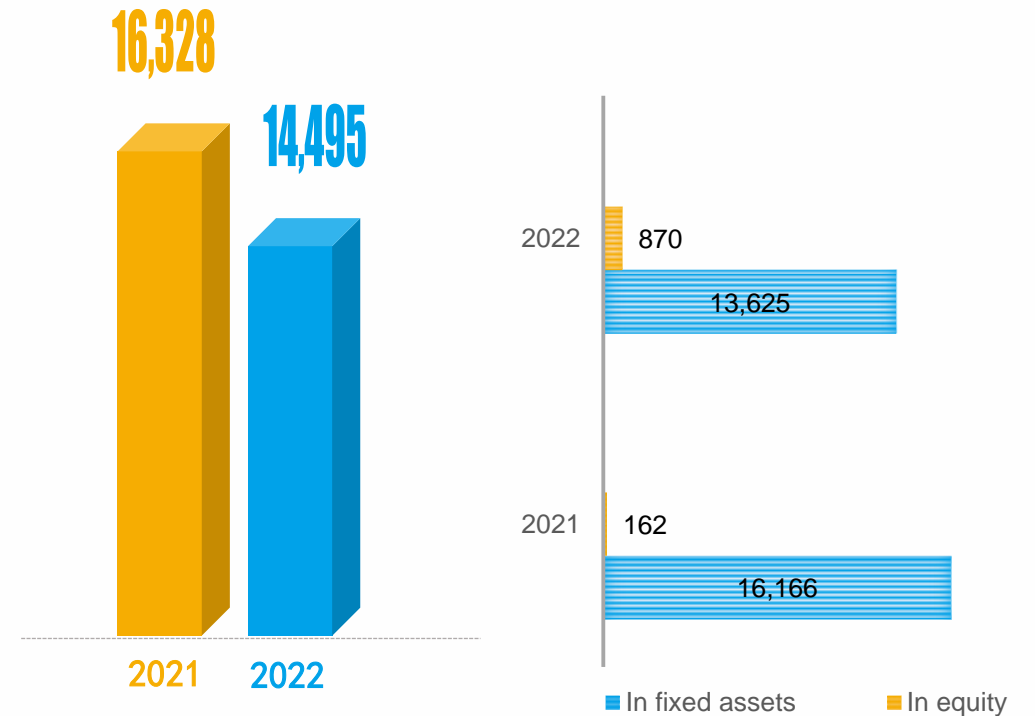


Debt to Equity Ratio %²



Capital Expenditure³

RMB M



Interest Coverage⁴



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 : The CAPEX here refers to cash flows.

Note4 : Interest coverage=(Total profit + Interest expenses recognized in profit or loss)/(Interest expenses recognized in profit or loss + interest expenses capitalized)

中广核  CGN

严 · 慎 · 细 · 实

中国广核电力股份有限公司
CGN Power Co., Ltd

Thank you !

