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# **CIMC ENRIC**

**CIMC Enric Holdings Limited** 

(Stock code: 3899. HK)



**English Version** 

2023.08.24



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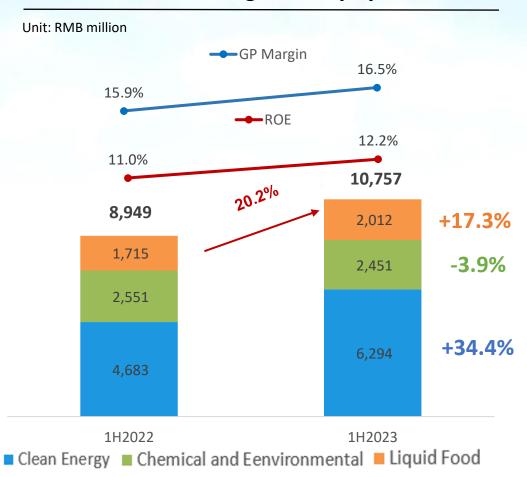
# Contents

- **1. Financial Performance**
- 2. Segment Performance and Orders
- 3. Business Highlights and Review
- 4. Outlook



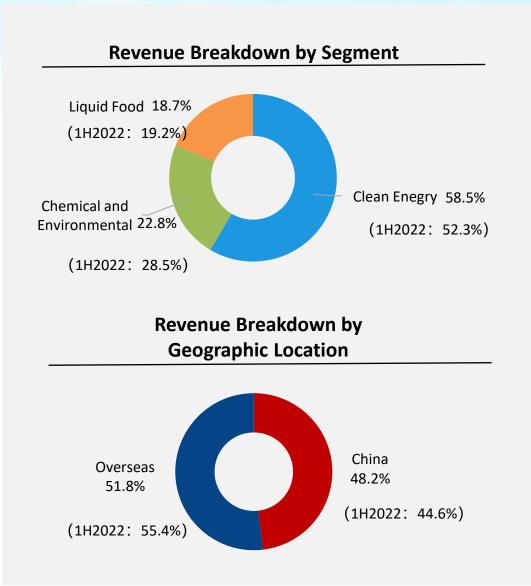
### **Clean Energy and Hydrogen Revenues and Profits Grew Significantly**

## **CIMC ENRIC**



#### **Revenue increased significantly by 20.2% YoY**

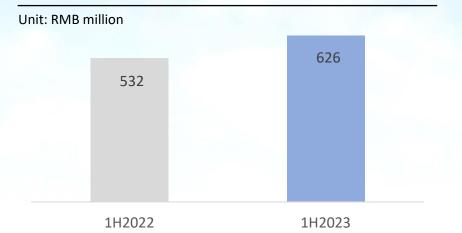
 1H2023 hydrogen energy business revenue: RMB270 million, up 59.1% YoY



\*All financial data currency is in RMB

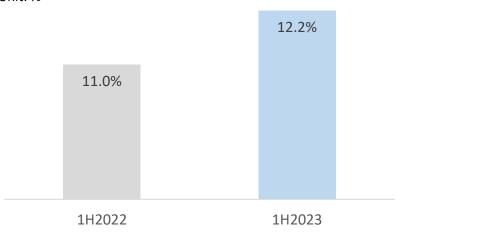
## **Continued Improvement in ROE**

### Core Profit\* increased by 17.7% YoY

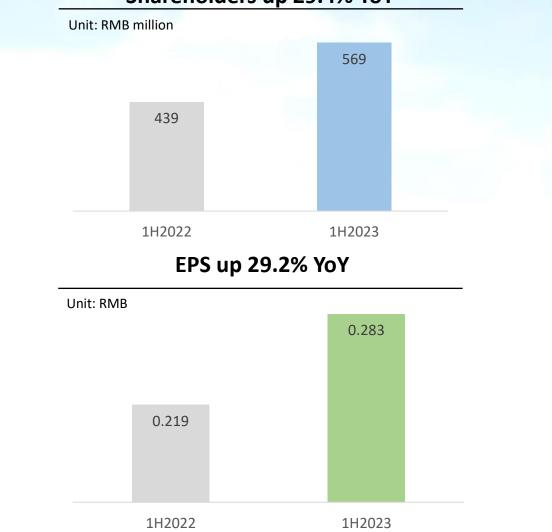


## Annualised Return on Equity (ROE)

Unit: %



## Net Profit Attributable to Shareholders up 29.4% YoY

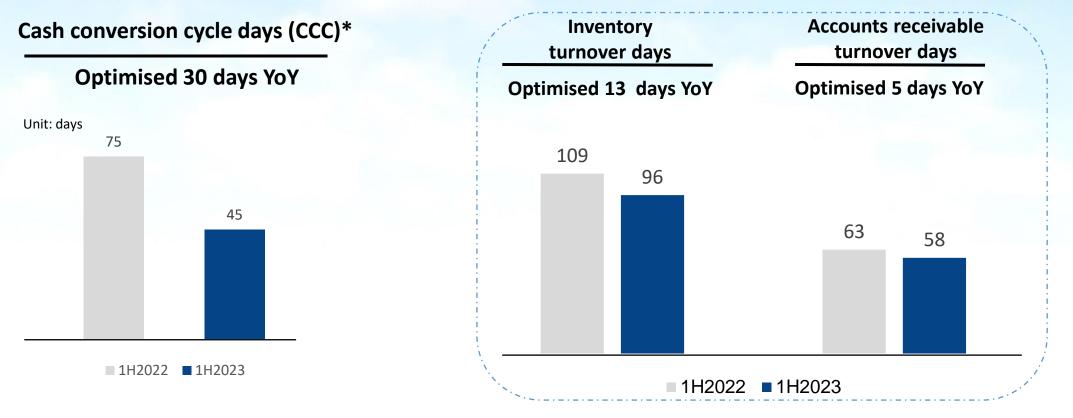


\*Core profit: Excluding amortisation of share base incentive scheme expense and convertible bonds related finance expenses.

**CIMC ENRIC** 

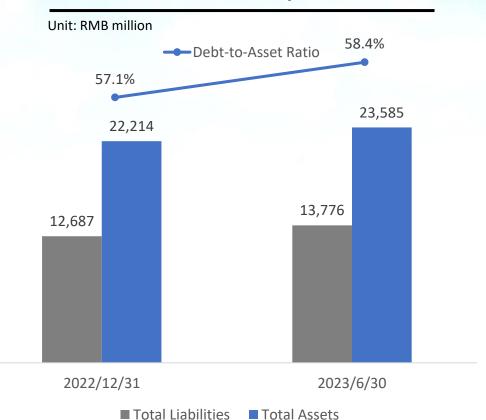
## **Significant Improvement in Cash Conversion Cycle Days**

## **CIMC ENRIC**

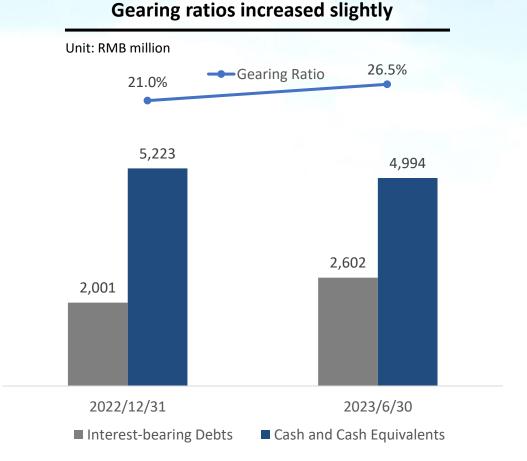


- Overall CCC was 45 days, significantly improved by 30 days YoY, further improving the efficiency of capital operation.
- Inventory turnover days and accounts receivable turnover days (A/R days) improved YoY.
- Inventory turnover days during the period was significantly optimised by 13 days YoY.

## **CIMC ENRIC**



#### **Robust asset-liability structure**



 Total liabilities of RMB13.78 billion included accounts payable, contractual liabilities, interest-bearing debts (convertible bonds + loans from financial institutions), etc.

- Interest-bearing debts included zero-coupon convertible bonds of approximately RMB1.45 billion and loans from financial institutions of approximately RMB1.15 billion.
- Excluding the effect of convertible bonds, the gearing ratio was 11.7%.

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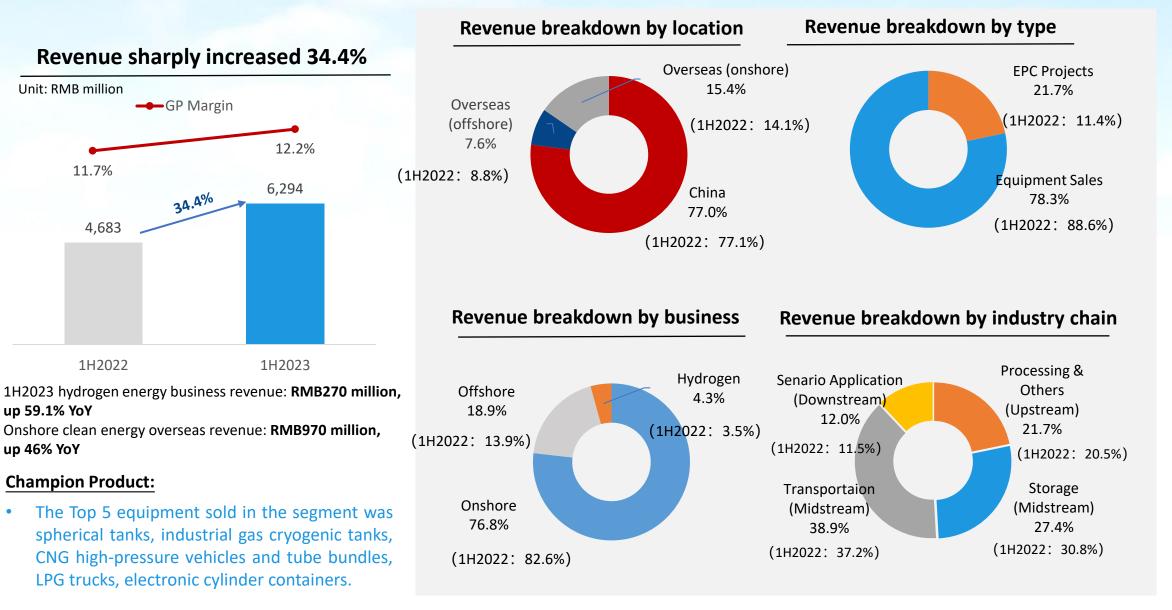
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## **Clean Energy Segment Performance**

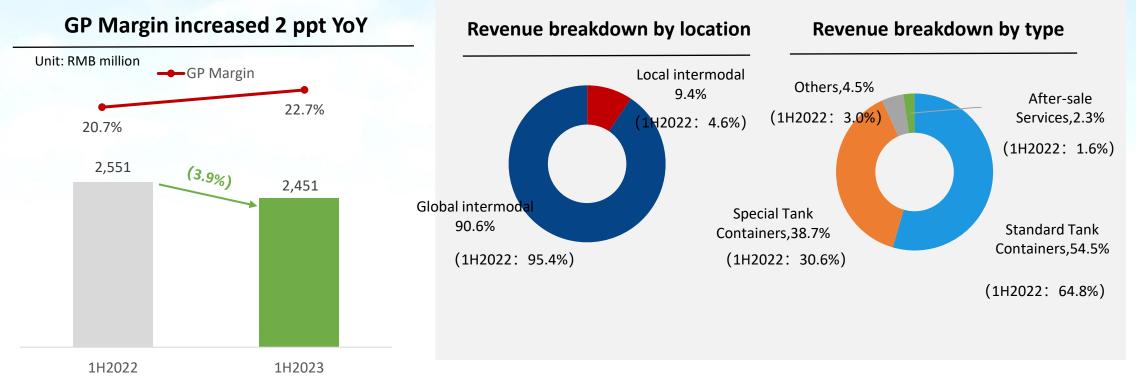
## **CIMC ENRIC**



#### 8

## **Chemical and Environmental Segment Performance**

## **CIMC ENRIC**

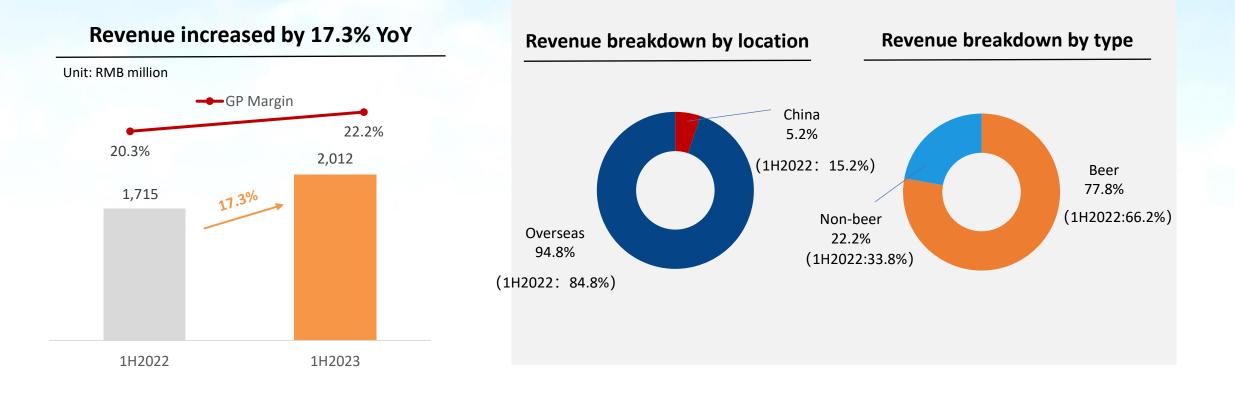


- The new demand for standard tanks gradually returned to normal as global supply and demand for chemical tank containers returned to equilibrium;
- Demand for special tank containers remained at a strong level, benefiting from the booming new energy and chip industries;
- Intelligent production line upgraded, automation level, production efficiency increased with energy saving and emission reduction. After upgrading, the capacity of special tank container is doubled;
- Building after-sale service outlets around global chemical industry clusters and key locations of tank container logistics hubs.

Champion Products: the bestselling tank container in the global market for 18 years consecutively \*

\*According to the ITCO 2023 report

## **CIMC ENRIC**



- Benefiting from the smooth progress of projects in hand at both domestic and overseas, the revenue of the liquid food segment grew steadily YoY.
- Significant growth in orders for turnkey beer projects during the period.

#### **Champion Products:**

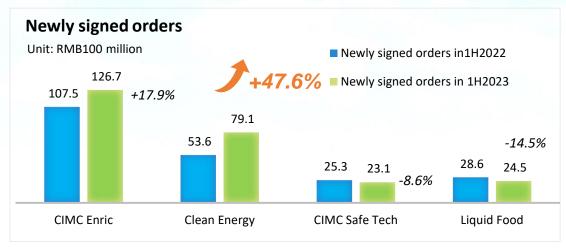
Turnkey Brewery Project - Top 3 Worldwide

Turnkey Distillation Project - Top 1 Worldwide

## **1H2023 Newly Signed Orders**

## **CIMC ENRIC**

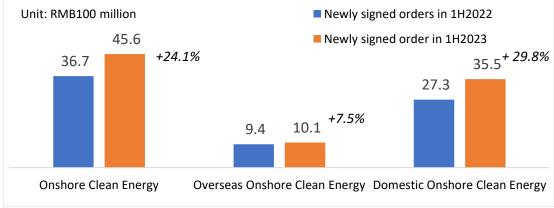
- In 1H2023, the recovery of domestic natural gas consumption and the return of LNG prices to normal levels, new orders for clean energy totaled RMB7.91 billion, significantly up 47.6% YoY, and with the upgrade of global green shipping and the high boom in the shipbuilding industry, new orders for offshore clean energy amounted to about RMB3.0 billion, greatly up 106.7% YoY.
- Liquid food new orders are mainly based on turnkey projects. Despite the substantial growth in beer turnkey orders during the period, in June 2022, the segment was awarded a large-scale spirits project in Mexico of nearly EUR94 million (about RMB670 million), so the newly signed orders during the period declined YoY compared to the previous year. New construction opportunities in Latin America, China, Europe and Asia Pacific are being closely followed and expected to drive new orders in 2H.



| Clean Energy          | Newly signed orders in 1H2023<br>(Unit: RMB100 million) |                          |            |
|-----------------------|---|--------------------------|------------|
| Categories            | Current Period  | Same Period<br>Last Year | Change YoY |
| Storage               | 20.3  | 16.8                     | 20.9%      |
| Transportation        | 44.3  | 28.1                     | 57.5%      |
| Scenario Application  | 8.7   | 7.3                      | 18.4%      |
| Processing and others | 5.8   | 1.3                      | 354.2%     |
| Total                 | 79.1  | 53.6                     | 47.6%      |

| Clean Energy          | Newly signed orders in 1H2023<br>(Unit: RMB100 million) |                          |            |  |
|-----------------------|---|--------------------------|------------|--|
| Categories            | Current Period  | Same Period<br>Last Year | Change YoY |  |
| Onshore Clean Energy  | 45.6  | 36.7                     | 24.1%      |  |
| Offshore Clean Energy | 30.0  | 14.6                     | 106.7%     |  |
| Hydrogen Energy       | 3.5   | 2.3                      | 50.0%      |  |
| Total                 | 79.1  | 53.6                     | 47.6%      |  |

#### Newly signed orders for onshore clean energy



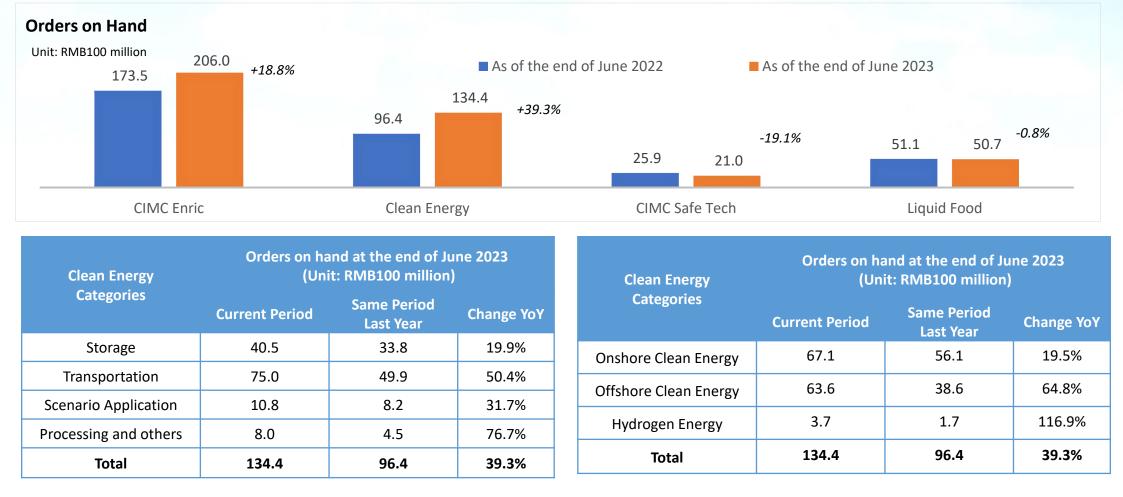
Newly signed orders: Cumulative value of all orders signed in 1H2023

• The change in ratios is consistent with 2023 Interim Results Announcement

## **Orders on Hand Recorded a New High**



- As at the end of June 2023, orders on hand amounted to RMB20.60 billion, representing a YoY increase of 18.8%, and orders on hand for the clean energy business increased by 39.3%.
- The chemical environment orders on hand YoY change was mainly due to the completion of the intelligent production line, the level of automation level and production efficiency improved, with special tank container production capacity doubled.



Orders on hand: Total orders value as of 30 June 2023.

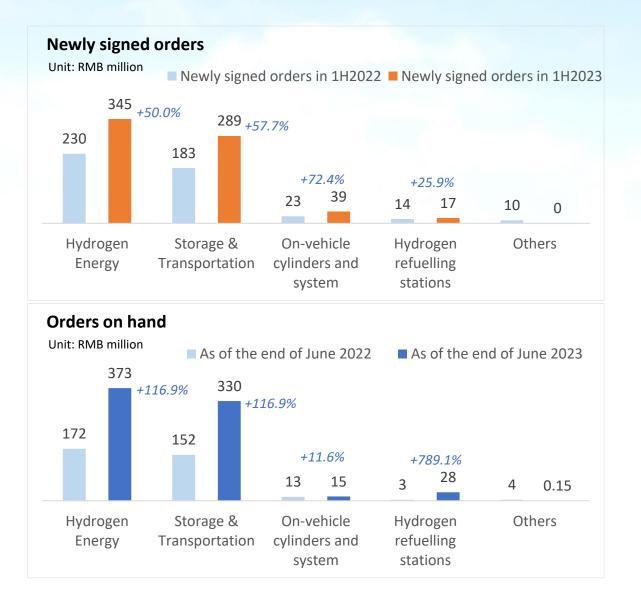
• The change in ratios is consistent with 2023 Interim Results Announcement.

## **Newly Signed Orders for Hydrogen Business Grew Rapidly**

## **CIMC ENRIC**

- The newly signed orders for hydrogen business in 1H2023 amounted to RMB350 million, representing a YoY growth of 50.0%; as of the end of June 2023, orders on hand amounted to RMB370 million, representing a significant YoY growth of 116.9%;
- New orders for Type III on-vehicle hydrogen cylinders and supply systems increased significantly, and production efficiency and capacity largely improved with the upgrade of production lines. In addition, the first hydrogen refuelling station project in Hong Kong was awarded during the period.





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## **2023 Interim Results Highlights**

## **CIMC ENRIC**



#### **Chemical and Environmental**

- CIMC Safe Tech was approved by CSRC to be listed in A-share
- Electrolyte tank, high-end liner tank, refrigerant tank container market demand continued to rise;
- The first powder coating was put into use, reducing VOC emissions and leading the industry's sustainable development.



- Orders for LNG on-vehicle cylinders, gas storage EPC projects largely increased; remarkable growth in the overseas market;
- Got eight new shipbuilding orders;
- Won the first hydrogen storage spherical tank EPC project in Inner Mongolia; liquid hydrogen tank container, hydrogen compressor and other core equipment rolled out of the production line; delivered Hong Kong's first hydrogen refuelling station.







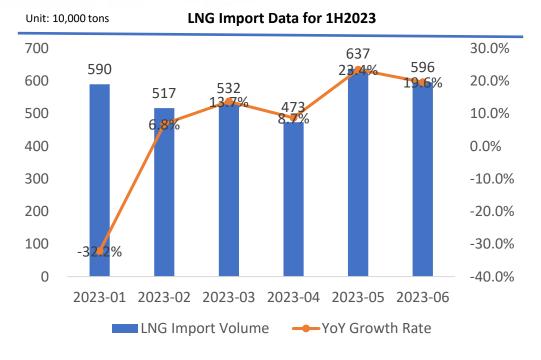
- Steady progress of beer, spirits, and biopharmaceutical projects in Mexico, the U.S., Thailand, and China;
- Explored areas such as biopharmaceuticals, baijiu and alternative proteins to promote revenue diversification

### **Recovery of Domestic Natural Gas Consumption**

## **CIMC ENRIC**

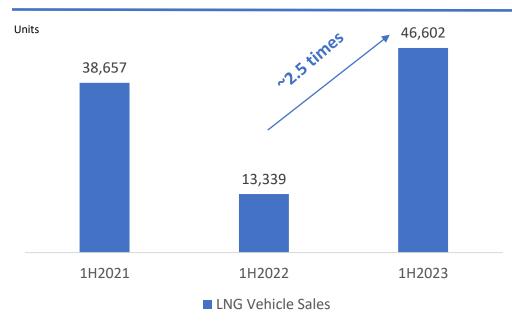
#### Natural gas consumption & import volume grew

- Apparent domestic natural gas consumption in 1H2023 was 194.9 billion m<sup>3</sup>, up 6.7% YoY.
- The import volume of natural gas in 1H2023 amounted to 79.4 billion m<sup>3</sup>, up 5.8% YoY, of which LNG import volume was 46.2 billion m<sup>3</sup>, up 6.7% YoY, accounting for 58.1% of the overall natural gas import volume. LNG imports in the Q2 were even up 18.0% YoY.



#### LNG prices returned to normal range

- As of 30 June 2023, the domestic LNG market price was RMB 4,182/ton, down 50.4% from the high position of RMB 8,437/ton of 2022.
- Diesel price remained high. Price ratio of LNG to diesel fell from a summit of 1.07 in 2022 to 0.57 at the end of this June, highlighting the economy of natural gas.



**Domestic LNG Vehicle Sales** 

\*Source: National Bureau of Statistics of China

\*Source: China Association of Automobile Manufacturers (CAAM)

## **Increased Demand for Clean Energy Equipment and EPC Projects**

## **CIMC ENRIC**



Increased demand for gas storage and peak-shaving projects

- Awarded an EPC contract for a 29,000m<sup>3</sup> natural gas peak-shaving storage station project
- Joint bidding, awarded a number of projects such as Shenzhen Natural Gas Storage and Peak-shaving Storage Phase II Expansion EPC General Contracting Project.

# On-vehicle LNG cylinder orders rose sharply

 Newly signed and delivered orders of on-vehicle LNG cylinder achieved substantial growth, with the cumulative newly signed up to near RMB300 million, representing an increase of nearly 20 times YoY.



## **Global Shipping Green Upgrading, Strong Demand for Shipbuilding**

## **CIMC ENRIC**

Signed orders of 8 new vessels, contract value over RMB1.7 billion with another 4 optional vessel orders

#### Expansion of new vessel type of MGC with A-type cargo tank



- Acquired 2+2 40,000m<sup>3</sup> LPG/liquid ammonia carriers (MGC vessels);
- Meeting the transportation demand for different liquefied gas cargoes such as LPG, liquid ammonia, vinyl chloride monomer, etc.;
- Matching the scale of liquid ammonia batch trading transportation, thus expected to be the backbone of zerocarbon energy transportation in the future.

## Strong demand for vessels with alternative clean energy fuel

- Acquired 2+2 1,450 TEU LNG dual-fuel container ships;
- Acquired 4 clean energy river-sea direct dry bulk carriers for CSC Bulk Shipping, accelerating "Gasification of Yangtze River", with the first ship being the first to apply the LNG tank-swap solution in the offshore of the Yangtze River



## LNG marine fuel tank orders continued to grow



- The rapid growth of global green power ship orders has led to a great demand for LNG marine tanks, with orders for LNG fuel tanks exceeding RMB1 billion in 1H2023
- Able to provide customers with diversified and customised fuel tank solutions, including B-type tanks and C-type tanks, etc.







#### Leading in Equipment and Integrated Solutions for the Whole Hydrogen Industry Chain

## **CIMC ENRIC**

## Won the first large-scale spherical tank hydrogen storage EPC project in Inner Mongolia

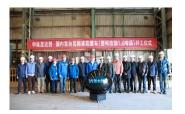
 Hydrogen spherical tank business driven by accelerated landing of green hydrogen project, awarded for the hydrogen storage EPC project of Huadian Group's hydrogen production project in Damao County, Baotou





## Liquid hydrogen storage and transportation equipment continued to break through

- Launched 40-foot liquid hydrogen tank container;
- China's first civil liquid hydrogen tank truck started construction



| CIMC     |  |
|----------|--|
|          |  |
| HYDROGEN |  |
|          |  |

Liquid

Hydrogen







 $\rightarrow$ 



#### Completion and delivery of Hong Kong's first hydrogen refuelling station

• Expected to commence operation together with hydrogen buses within this year, marking a new chapter in Hong Kong's "hydrogen" energy



## 9 136N

Type IV Cylinder



#### Type IV on-vehicle hydrogen supply systems

Successful delivery of hydrogen Type IV onvehicle hydrogen supply systems for overseas hydrogen heavy-duty trucks and the hydrogen smart rail projects

Accelerated the construction of the production base of Type IV on-vehicle hydrogen cylinders and supply systems in Luancheng, Shijiazhuang, Hebei, China.

4

## **R&D Breakthrough and Innovation Leadership**

## **CIMC ENRIC**

#### Nantong Transport was selected for the fifth batch of National SRDI Little Giants Enterprise A total of three of our enterprises having been honored the award



#### R&D in hydrogen energy equipment leading the industry

- Liquid hydrogen: Completed the development of ASME standard liquid hydrogen storage tank, and successfully signed the first order; the construction of liquid hydrogen tank truck started;
- Hydrogen compressor: Successfully launched 90MPa 1000kg liquid-driven compressor and 45MPa diaphragm compressor;
- **Standards:** Participated in the preparation of the national standard for Type IV cylinder, which was released and implemented during the period; led in the completion of a number of group standards for hydrogen storage and transportation containers;
- Hydrogen production: 1200Nm<sup>3</sup>/h alkaline electrolyser successfully launched; promoted the manufacture of prototype methanol-to-hydrogen equipment;

#### Breakthrough and innovation of cutting-edge onshore clean energy equipment

- Completed China's first phosphane and hydrogen mixer tube bundle container, marking a new breakthrough in the domestic electronic gas storage and transportation equipment;
- Completed the design, installation and commissioning of the first industrial LPG micro-pipeline network project
- Batch delivery of the largest volume carbon dioxide semi-trailer in China for carbon dioxide capture, utilization and storage (CCUS) project, assisting the carbon circular economy





#### Steady progress in the LNG tank-swap demonstration of offshore clean energy business

- Started the construction of the largest independent B-type liquid cargo tank in China, providing customers with diversified and customized solutions for A-type, B-type and C-type liquid cargo tanks
- Undertook the design and construction of A-type liquid cargo tank MGC carriers for the first time
- LNG tank-swap demonstration program passed the expert review, providing a new way for LNG bunkering

## Self-developed and Launched Two Types of Hydrogen Compressors

## **CIMC ENRIC**

Breakthrough in core equipment of hydrogen energy industry chain with a wide application scenarios such as hydrogen refuelling stations, pipeline hydrogen mixing





- Product performance and specifications reaching the international advanced level
- Able to be turn on and off under pressure frequently, improving working efficiency.
- Optimised structure, ensuring the cleanliness of hydrogen gas
- Modular design for highly flexibility
- Significantly improved integration, reducing equipment space



#### 45MPa Diaphragm Hydrogen Compressor

- Single-membrane head displacement 500Nm<sup>3</sup>/h, double-membrane head displacement 1000Nm<sup>3</sup>/h, widely used in high purity hydrogen refuelling station system for hydrogen fuel cell vehicles.
- With features of high efficiency cooling and energy saving, low discharge temperature, large flux, safety and reliability, skid mounting, standardization, intelligence, etc.

## **CIMC ENRIC**

#### Approved by the CSRC to make the initial public offing in A-share Market and will be listed on the ChiNext Board

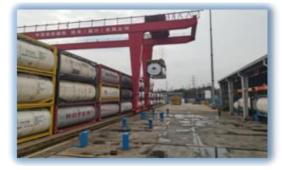
#### Long-term leading position in the global tank container market in terms of market share

- CIMC Safe Tech is a global chemical logistics equipment manufacturer and full life cycle service provider integrated with business of tank container design and development, manufacturing and sales with the world's largest manufacturing scale, most complete series of varieties and leading technology.
- In response to the development of different emerging industries, it has continued to R&D new products, such as the semiconductor industry's new liner tank containers, customised tank containers to meet the needs of electrolyte precision temperature control of new energy lithium battery industry, medical nuclear magnetic equipment products.



#### Continuously expanding after-sale service outlets to build full life cycle service capability

- Providing professional repair, cleaning, refurbishment and modification services for all tank containers in the market
- Establishing after-sale service outlets in the world's major chemical industry clusters and tank container logistics hubs, such as Netherlands, Jiangsu and Zhejiang
- Demand for tank container cleaning and maintenance in chemical industry clusters and the growth in tank container ownership are driving the growth of the aftersales service business







Daily tank maintenance cost: ~RMB5,200/year, tank ownership: ~802,000 units

Market space for tank container after-sales services: ~ RMB4.17 billion/year

## **R&D** Innovation to Create Intelligent Production Lines, Products and Services

## **CIMC ENRIC**

Intelligent Production Line Upgrading





### Production line upgrading (powder coating project)

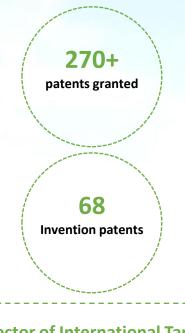
- The world's first powder coating line for the tank container industry, commissioned in the Q2 of 2023
- Greatly Improving paint spraying efficiency of tank containers and reducing VOC emissions
- Leading the industry in green development

#### Intelligent Product R&D



- Intelligent and technological tank
- Providing customised tank container information services based on IoT technology
- **G** Key development direction:
- Intelligent sensing products: Digital display thermometer,
  intelligent flange, temperature sensor, pressure sensor and etc.
- Intelligent terminal: Digital operation platform for tank containers
- Electrical equipment: Solving customers' needs for electrical automation such as in-transit temperature management, automatic loading and unloading, and complete sets of equipment control.

#### **R&D** Innovation



Director of International Tank Organization ITCO

National CNAS System Certified Product Testing Laboratory

### **Projects of Liquid Food Segment Progressing Steadily**

## **CIMC ENRIC**



Projects such as the turnkey beer and tequila project in Mexico, the beer automation project in the US, and largescale brewery projects in Thailand and the US are all in good progress.

> Domestic and Overseas Projects Steadily Advancing



Briggs provides leading pharmaceutical solutions with a strong presence in pressure vessels and reactor vessels for the pharmaceutical industry.

> Expansion in biopharmaceuticals and other fields



Diageo's first carbon neutral whisky distillery demonstration plant in China is progressing steadily and will be carbon neutral, water regenerative and zero waste.

> Carbon Neutral Distillery Project Demonstration

## **Continuous Promotion of ESG Governance and Management Enhancement**

## **CIMC ENRIC**

| Actively responding to climate change<br>Initiating work to address climate change and carbon<br>target-setting, with targets progressively aligned with TCFD<br>guidelines  |   | Environment   | Social<br>Technological breakthroughs to empower<br>industrial development  |  |
|--|---|---|---|--|
|  |   | <b>↓6% ↓7.4%</b>  |   |  |
| Governance<br>Improving the Board's<br>Climate Change Oversight<br>Function and improving<br>responsibility for managing<br>climate-related risk   | Strategy<br>Progressive integration of<br>climate change responses into<br>corporate business<br>development strategies   | CO2 emissions per RMB 100<br>million revenue earnedVOCs emissions per RMB100<br>million revenue earned2SignatureGreen Factory Certification<br>ApplicationPromoting self-consumption<br>PV projects   | Technological breakthroughs in the field of liquid<br>helium, liquid hydrogen equipment, LNG-powered<br>ships, etc. Joint R&D Center for Hydrogen Energy with<br>Zhejiang University - 2 cooperative projects to be<br>implemented. 20 patents for green products,<br>including 10 inventions |  |
| opportunities<br>Risk Management   | Indicators and objectives   | Governance<br>Aligning with international best practices and improving ESG-   | Implement the HSE philosophy of "<br>Compliance, Safety, Health and Greer<br>Management".   |  |
| Conducting a process of<br>identifying and ranking the<br>significance of climate-<br>related risks and<br>opportunities, the results of<br>which are expected to be<br>published early next year.<br>Conduct quantitative<br>financial impact analysis in<br>due course | In accordance with the<br>guidelines of the Science-<br>Based Carbon Target<br>(SBTi), carrying out work<br>related to setting the<br>Company's medium- and long-<br>term carbon targets, and the<br>results are expected to be<br>announced at the beginning<br>of next year | related policy development and disclosure<br>Code of Integrity and Compliance<br>Remuneration Policy for Directors and Executives<br>Whistleblowing Policy (updated)<br>Board Diversity Policy (updated)<br><br>Refining the Board's Governance Structure on Addressing<br>Climate Change | Work-related fatal accidents<br>Major product quality and safety accidents<br>Number of environmental protection penalty<br>incidents<br>Number of major information security incidents   |  |

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## **Industry Outlook**

## **CIMC ENRIC**



#### **Clean Energy**

- The IEA predicts that LNG will replace coal as the second largest energy source in the global energy structure in 2030-2035; affected by the domestic economic situation and the trend of natural gas prices at home and abroad, it is expected that the natural gas market demand will continue to rise
- The IMO's new regulations have been introduced, and the requirements for emission reduction are becoming increasingly stringent; alternative fuels such as LNG and green methanol are becoming an industry trend in ocean shipping.
- Green hydrogen project landing drives demand for hydrogen spherical tanks, liquid ammonia transportation trucks and other equipment.



#### **Chemical and Environmental**

- The gradual promotion of multi-modal transportation policy, tightening of chemical safety requirements, cross-regional investment in the chemical industry and other factors are conducive to enhancing the penetration of tank containers in the field of chemical logistics.
- Driven by good prospects for electrolytes and semiconductors, demand for electrolyte tank containers and high-end lined tank containers will continue to grow.
- Climate warming, growth in demand for refrigerant tank containers



### Liquid Food

- Emerging countries' GDP growth, consumer preference for craft and premium beers, and demand for lower-calorie beverages to drive long-term growth in the liquid food segment.
- Upgrading opportunities for brewery carbon neutral transformation.
- Continuing to increase the revenue share of our China business.

#### **Domestic and Overseas Natural Gas Market Continues to Rebound**

### **CIMC ENRIC**

## Domestic natural gas demand is expected to continue to recover in 2023

Domestically, demand will continue to pick up due to the economic situation and the trend of natural gas prices at home and abroad. The IEA forecasts China's natural gas consumption to grow at a rate of 6.6% in 2023.

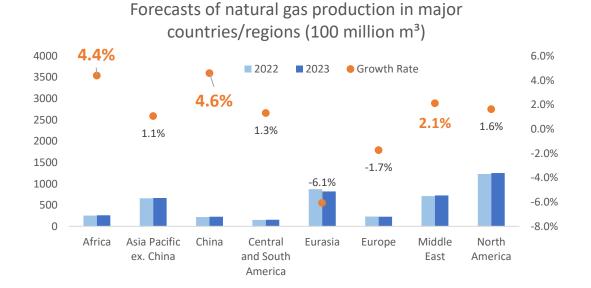
The NEA also forecasts that the national natural gas consumption in 2023 will range from 385 billion to 390 billion m<sup>3</sup>, with a YoY growth of 5.5% to 7%, mainly driven by the use of city gas and power generation.

Forecasts of natural gas consumption in major countries/regions (100 million m<sup>3</sup>)



## International: Opportunities in Africa, the Middle East and other markets

IEA predicts that LNG will replace coal as the second largest energy source in the global energy mix from 2030-2035. The International Gas Union's Global LNG Report, released in June this year, showed global LNG trade grew by 6.8% in 2022 to reach a new record of 401.5 mt, and the scale of global LNG trade is expected to continue to grow in 2023.



## **Thriving Clean Energy Alternative Fuel Ship Market**

## **Tightening regulations for the shipping emission**

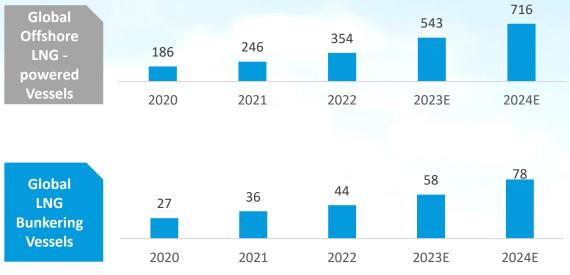
On 1 January 2023, the IMO's new environmental regulations - Energy Efficiency Index (EEXI) and Carbon Intensity Index (CII) for existing ships came into effect.

According to Vessel Value statistics, based on the EEXI alone, nearly 70% of the global mainstream ship market still has substandard capacity. Clarkson recently released a report that the next ten years there will be USD1.6 trillion of new shipbuilding investment needs.

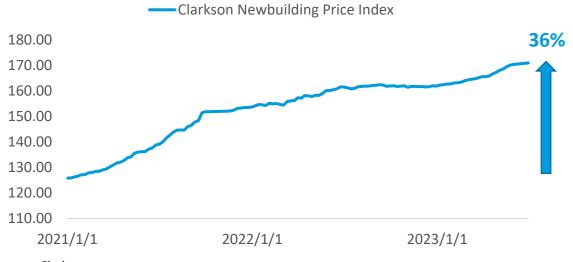
#### New vessel prices rising

The liquefied gas vessel market gradually picked up in 1H2023, with the shipbuilding industry ushering in a long-term high boom cycle and the price of new-buildings rising steadily.

As of June 30, the Clarkson Newbuilding Price Index recorded 170.91 points, up 36% from the beginning of 2021 and reaching the highest level since January 2009.



Source: DNV Alternative Fuels Insight Platform



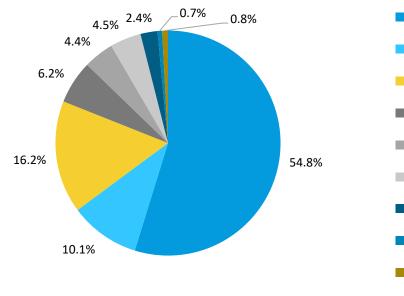
Source: Clarksons

**CIMC ENRIC** 

## **Global Green Methanol Market Expected to Embrace Rapid Expansion**

- Clarkson Research reported that 44% of new ship orders in 1H2023 came from alternative fuel vessels, of which 86 LNG vessels and 62 methanol vessels, making methanol fuel one of the mainstream demand for fuels right after LNG.
- Middle East, Europe, North America and other regions have launched green methanol production programs, and related projects have landed globally. The IRENA has predicted that by 2050, the supply of green methanol is expected to reach 385 million tons. Messenius, the world's largest methanol producer, predicts that in the next five years, global ethanol will increase by 14 million tons per year, with the incremental increase mainly in green methanol.

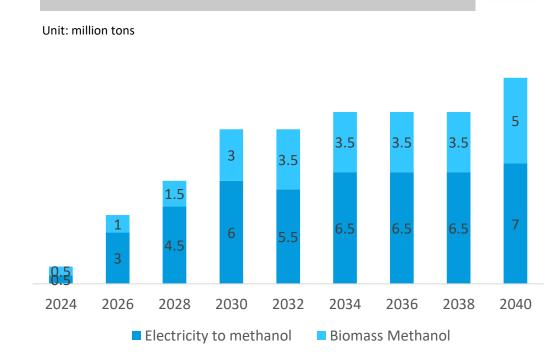
#### **Alternative Energy Ship Orders on Hand Share as of 1H2023**



Source: Company based on Clarksons data



#### **Forecast Supply of Methanol Fuel to Shipping Industry**



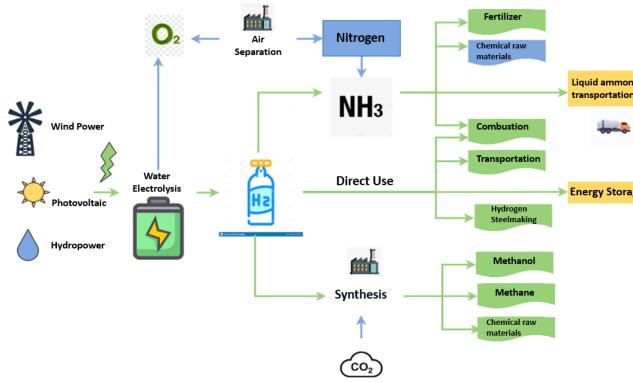
Source: Statista

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#### **Enormous Demand in Hydrogen Storage and Transportation**

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- Hydrogen energy has the characteristics of no self-decay, low expansion cost, high energy density, and convenient transfer of energy generation.
- On the supply side, the mandatory storage requirements for renewable energy installation (up to 30%) will drive the development of hydrogen energy storage. Wind-solar integration projects are also continuously planned and implemented. In 1H2023, about 20 wind-solar-hydrogen storage integrated projects with a corresponding green hydrogen production capacity of 300,000 tons per year has been implemented in China.
- On the application side, hydrogen energy can gradually penetrate and apply in transportation, industry, chemical and other areas. Diversified application scenarios open up the demand-side market, which in turn drives the demand for hydrogen energy storage.



| Energy storage<br>methods | Principles   | Advantages  | Disadvantages   | Applicable<br>scenarios   |
|---------------------------|--|---|---|---|
| Pumped hydro              | Convert excess electricity into<br>potential energy  | Mature technology                                   | High terrain<br>requirements,<br>making it difficult<br>for large-scale | Areas<br>with terrain<br>advantages and<br>daily peak-load<br>regulation<br>needs |
|                           | Convert excess electricity into<br>potential and internal<br>energy of compressed air to<br>drive gas turbines for power<br>generation | Safe and large<br>capacity                          | and potential for   | Shared use with<br>other thermal<br>power systems                                 |
| Battery                   | Store excess electricity in<br>batteries   | Fast response and<br>no geographical<br>limitations | Self-decay and  | Daily<br>and frequency<br>regulation for<br>power grids                           |
| Hydrogen                  | Convert excess electricity into chemical energy of hydrogen gas through water electrolysis   | energy density, and                                 | I OW ATTICIANCY   | Seasonal peak-<br>load regulation   |

Hydrogen energy industry chain and application scenarios

## The Tank Container Industry Maintains a Long-term Trend of Stable Growth

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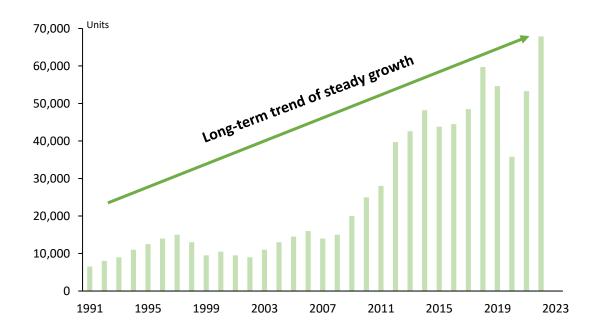
## In the long run, tank container industry is in a spiral upward trend

Tank container is a safe and efficient chemical logistics equipment. In the long run, the gradual promotion of multimodal transport policy, the tightening of chemical safety requirements, cross-regional investment in the chemical industry and other factors will be beneficial to enhance the penetration of tank containers in chemical logistics sector and promote the continuous growth of chemical logistics industry, facilitating the tank container industry market to maintain a long-term upward trend.



\*Source: Precedence Research, Prospective Industry Research Institute, ITCO annual reports





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## Multiple factors drive future growth of domestic tank container industry



Safety and **Environmental Protection Requirements** 

Strengthening the regulation and management of chemical transportation tightening the control of dangerous goods safety operations Tank containers have a large market space due to their advantages of safety, economy, high efficiency and environmental protection.

#### **Replacement Needs of** Tank Trucks, Liquid Bags, etc.

**D** 

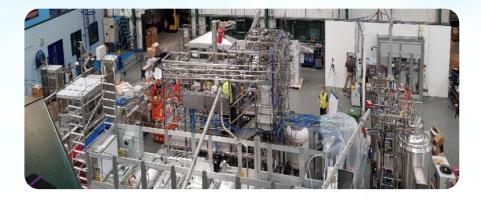
Transportation modes of chemical logistics include tank container, liquid bag, tanker, IBC and other forms, and the proportion of tanks container with higher safety is only about 10%.

Compared with tanker transportation, the safety standard of tank container is higher, and it can also realise the safe and flexible logistics transportation mode of road, railroad and waterway. The penetration rate is expected to continue to increase.

EV tank data shows that global lithium-ion battery electrolyte solvent shipments reached 924,000 tons in 2022, up 73% YoY. Global electrolyte demand expected to reach 2.726 million tons in 2025. Semiconductor Industry Association (SIA) data shows the continuous growth in global semiconductor sales reached a record of USD573.5 billion in 2022 compared to 2021.

## **Actively Expanding the Liquid Food Segment**

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Growing Demand in the Global Biopharmaceutical Market

- According to Statista's report, the global biopharmaceuticals market size is expected to be around USD378 billion in 2023.
- □ The CAGR is expected to be 10.1% from 2022-2026, and
  - the global biopharmaceutical market size is expected to reach approximately USD505 billion in 2026.



#### Beer Market Consumption Upgrading Tapping into Emerging Market Opportunities

- According to Statista's report, the global beer market is expected to
  - grow at 5.4% per annum between 2023 and 2025.
- Asia-Pacific Market is growing significantly, with China becoming the world's largest beer-consuming market in 2022.
- Based on the continued growth in sales of mid-to-high-end beer, the Craft Beer Industry Research Report 2023 by Scorchdene Consulting forecasts that domestic craft beer will have a CAGR of up to 17.0% from 2022 to 2025.

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# **Q&A**



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