

Doosan Fuel Cell

**DOOSAN**

# 2024 3Q Presentation

October 2024

Investor Relations



## Disclaimer

The information herein is provided for your information purposes only and contains preliminary figures which may be materially different from the final figures.

Forecasts and projections contained in this material are based on current business environments and management strategies, and they may differ from the actual results upon changes and unaccounted variables.

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Financial data in this presentation is on K-IFRS consolidated and separate basis.



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# 1. 2024 3Q sales

## 3Q earnings: sales 32 billion won, operating loss 2.3 billion won

- Absence of PPLT delivery led to decreased sales and operating loss
- 2023 CHPS bidding project will fully begin to reflect in sales from 4Q, leading to a significant rebound in annual sales revenue

### 3Q sales & operating profit

(KRW in billions)

[ Based on separate financial statements]

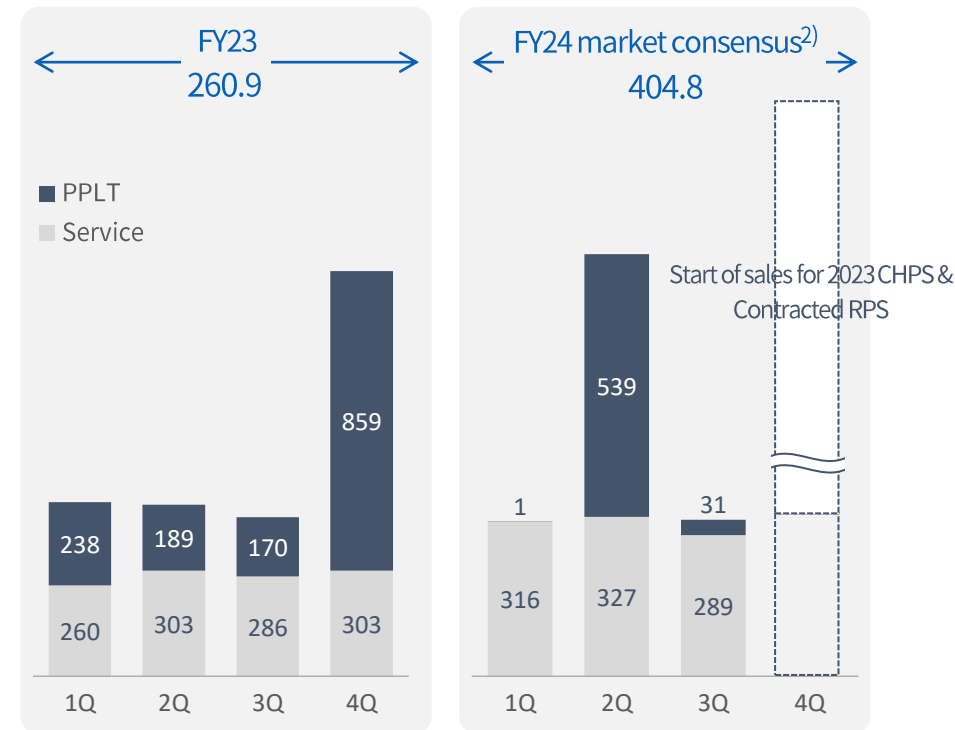
Type	23.3Q	24.3Q	YoY
Sales	45.6	32.0	-29.7%
PPLT	17.0	3.1	
Service	28.6	28.9	
O.P	0.7	-2.3	T.R
OPM(%)	(1.4%)	(-7.2%)	

- Operating loss of 2.3 billion won recorded due to poor sales in 3Q
- 3Q revenue remains at 32 billion won on a consolidated financial statement basis<sup>1)</sup> while operating loss is 3 billion won

1) Acquired 100% of shares of HyAxiom Motors and incorporated into subsidiary corporation subject to consolidation of the Company ('24.01.02)

### Quarterly Sales Trend

(KRW in billions)



2) Consensus: average sales estimate from 8 securities firms in the last 3 months

## 2. Order trend - CHPS bidding market outcome

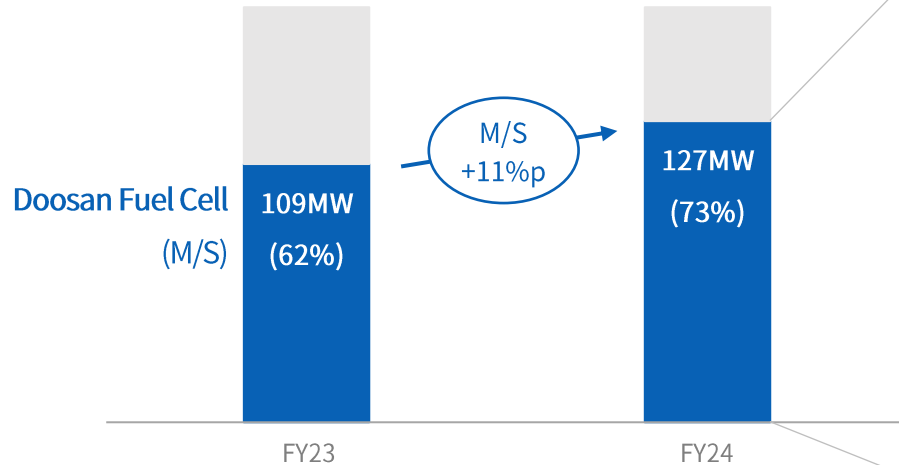
### Achieving 73% M/S general H2 power generation bidding market in 2024

- 127MW secured out of a total of 175MW<sup>1)</sup> → expected to be reflected in '25~'26 sales

#### 2024 bidding outcome for general H2 power generation

[Based on equipment capacity]

Total awarded quantity 175MW



#### 1 Demonstrating H2 model competitiveness

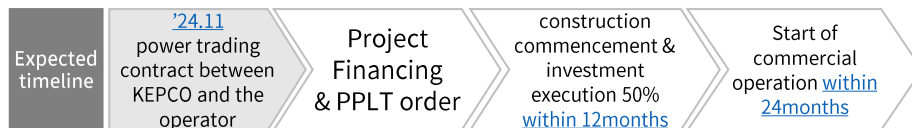
- Securing 3 byproduct H2 Projects(38MW)
- Introduction of next-generation H2 combustion model M500 to strengthen competitiveness
- Reducing investment costs for clients through increased output (440kW→ 550kW)

#### 2 Strategic site selection

- Project development near electricity and heat demand areas, such as industrial complexes and new towns, aligns with the purpose of distributed energy resources

#### 3 Excellent contribution to the industry

- High localization rate, continuous R&D, and direct provision of maintenance services contribute to domestic H2 industry in various ways



1) Based on generation output : 1,314GWh

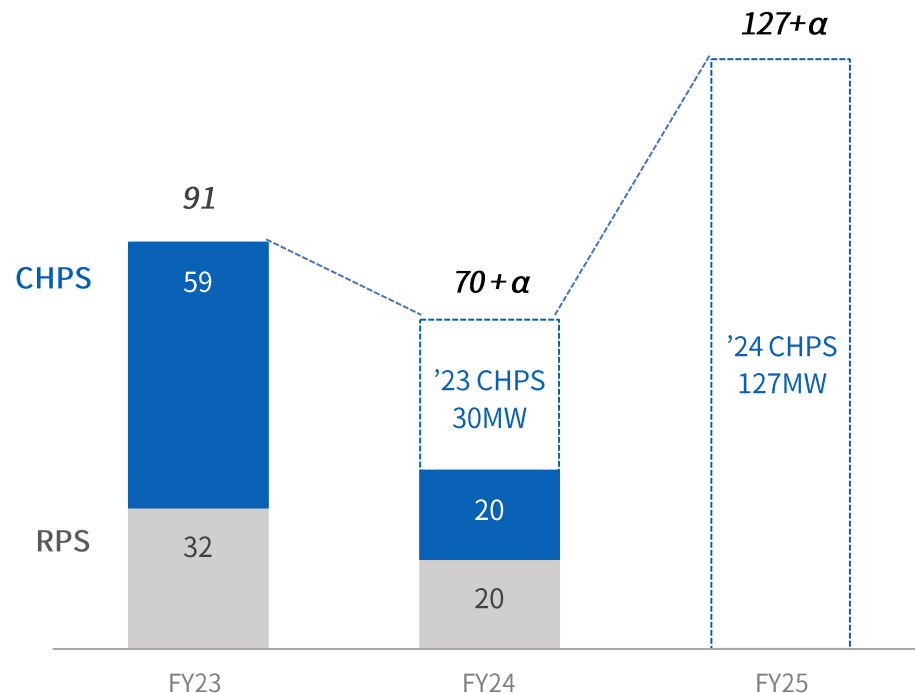
## 2. Order trend - performance and outlook

### Cumulative new orders of 40MW recorded by the end of Sep

- '23 awarded CHPS volume are recognized as orders this year, with an annual forecast of 70MW +  $\alpha$  in 2024

### Order performance and outlook

(Unit: MW)



#### 1 Order recognition of '23 awarded CHPS volume is underway

- Recognition of 59MW in 2023 and 20MW in 2024 out of the total 109MW
- Approximately 30MW of remaining volume expected to be recognized within 2024

#### 2 '25 order forecast for '24 awarded CHPS volume

- Re-announcement of the bidding process led to schedule delays
- Expected to reflect new order of 127MW within 2025

#### 3 Working to win RPS project orders

- Progress is flexible depending on market conditions
- Working to win 2 PJT orders within 2024-2025

### 3. Management Activities - overseas market

#### Signed an MOU with biggest Chinese energy company CEEC<sup>1)</sup> for strategic cooperation (Aug '24)

- Attracting a pilot project to enter the Chinese market

#### MOU overview



1) Energy China(China Energy Engineering Company, CEEC)  
- largest state-owned energy and power EPC company in China

2) Shaanxi, Gansu, and Qinghai Provinces and Ningxia and Xinjiang Autonomous Regions

#### Strategy for winning orders in China

##### Status of hydrogen market in China

- Increased interest in hydrogen energy for carbon neutrality
  - Announcement of 2030 carbon peak and 2060 carbon neutrality (Sep '20)
  - Announced a mid-to-long-term development plan for the hydrogen energy industry (Mar '22)
- Renewable energy expansion is laying the foundation for green hydrogen industry growth
- Working to establish decentralized district heating system infrastructure

*“Fuel cell market for power generation has significant growth potential, but the market has not yet fully matured”*

##### Strategies of Doosan Fuel Cell

- ① Gradual expansion of business opportunities after attracting pilot projects
  - Local Track Record based
- ② Maximizing collaboration benefits with large state-owned enterprises
  - Collecting project information, activities to support market development
- ③ Utilizing abundant renewable energy resources(solar power, wind power) in Northwestern China
  - Promoting fuel cell power generation project linked to water electrolysis

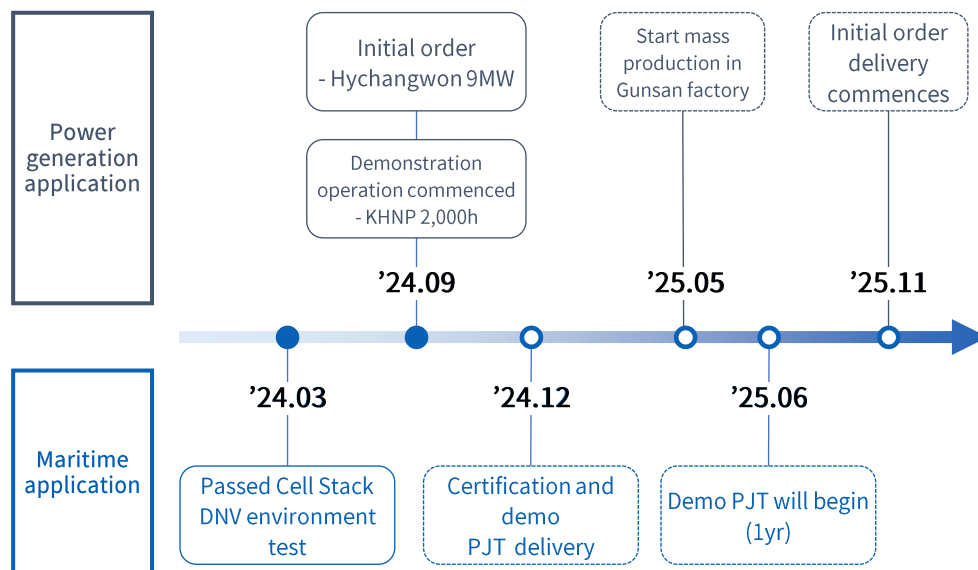


## 4. New biz - SOFC

### Preparation for SOFC biz is on track

- Won the first order for power generation with demonstration operation commenced & demonstration PJT delivery for maritime application following certification by a classification society within this year
- Maximizing business effectiveness with product portfolio added

### Expected timeline



- 1) base load : minimum generation capacity maintained at a steady rate
- 2) peak load : generation capacity that fluctuates according to power demand
- PAFC has low operating temperature, making it relatively easier to adjust the generation output in response to load variation

### SOFC commercialization strategy

Output per  
fuel cell  
300kW

Electrical  
efficiency  
55%~60%

Low to medium- temperature  
(approximately 600°C)  
operation to improve  
stability and product lifespan

\* Based on design specifications

- 1 High electrical efficiency and stability**
  - ✓ Application to '25 CHPS bidding market
  - ✓ energy-intensive demand (ex. data center) response
- 2 Providing optimal SOFC + PAFC solution**
  - ✓ SOFC plays a base load<sup>1)</sup> role with PAFC as a peak load<sup>2)</sup> role
  - ✓ Meet heat or byproduct H2 utilization needs
- 3 Demand sources diversification**
  - ✓ Enter the market for power generation and maritime applications
  - ✓ Sales of finished product and parts(Cell Stack)



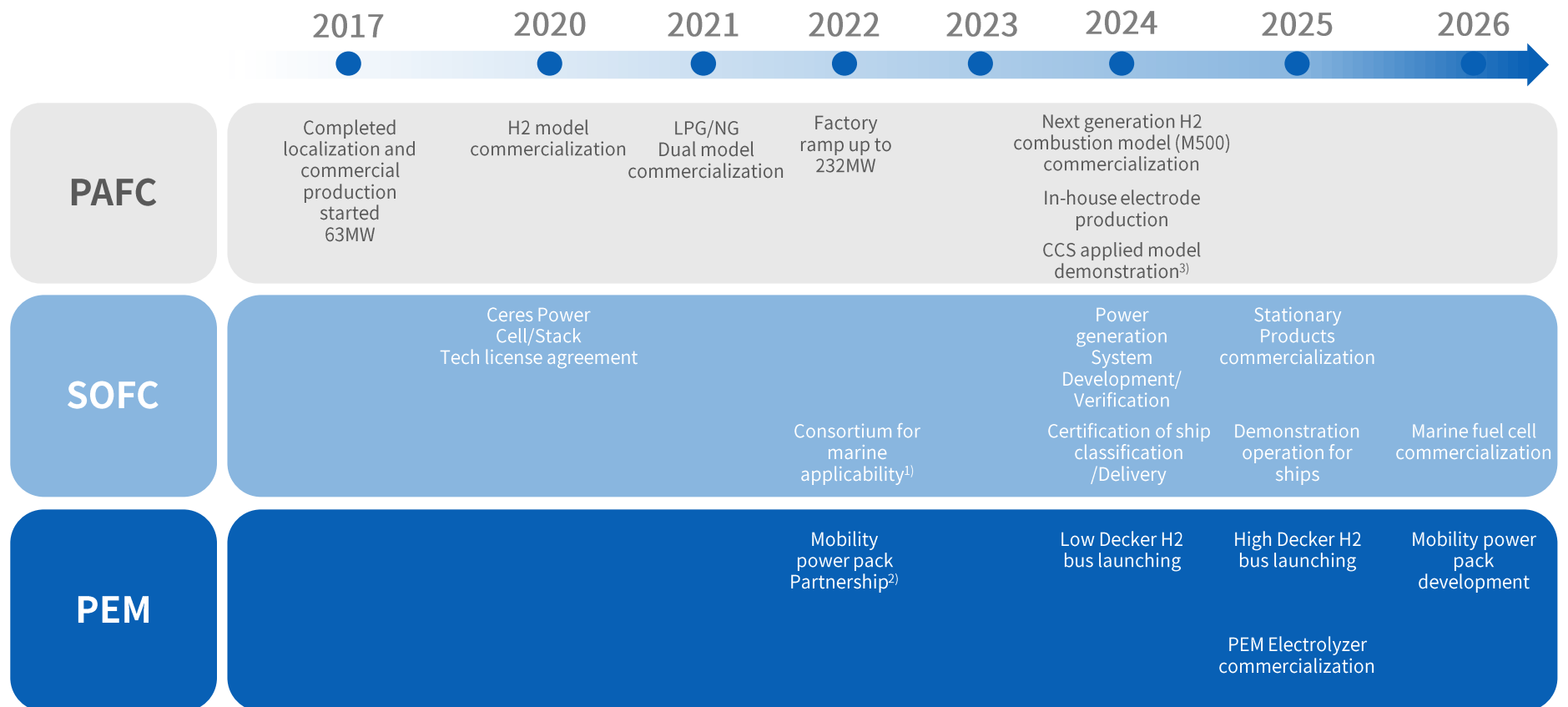
# Q&A Session



# Appendix. New biz Roadmap

## Utilizing various technologies to build new growth engine

- Securing new growth engines through power generation·marine SOFC and mobility biz



1)Working with Shell, DNV, and HD Korea Shipbuilding & Marine Engineering, 600kW SOFC will be installed as the ship's auxiliary power unit (APU) to demonstrate for a year from 2025

2)Doosan FC, Ballard Power Systems and HyAxiom signed an MOU to develop power packs for mobility and H2 bus supply projects

3)Working with Korea Hydro & Nuclear Power, Airrane and Korea Engineering Consultants, CCS(Carbon Capture Storage) applied fuel cell demonstration will be carried out for a year

# Appendix. Financial statement (1/2)

## Summary of Financial Statement

Separated						Consolidated			
(KRW in billions)	23.12	24.06	24.09	YoY	Compared to June end	24.06	24.09	Impact	Compared to June end
Total assets	1,070.8	1,133.2	1,259.2	188.3	126.0	1,132.0	1,259.9	0.7	127.9
Current asset	648.1	672.2	765.3	117.2	93.1	670.6	763.3	-2.0	92.7
Non-current asset	422.8	461.0	493.9	71.1	32.9	461.4	496.6	2.7	35.2
Total liabilities	558.2	620.0	748.7	190.5	128.8	621.3	752.9	4.1	131.6
Current liabilities	287.4	346.4	411.0	123.6	64.6	346.8	412.4	1.4	65.6
Advanced Received	12.3	19.1	109.1	96.7	89.9	19.1	109.1	-	89.9
Non-current liabilities	270.8	273.6	337.8	66.9	64.1	274.5	340.5	2.7	66.0
Total capital	512.7	513.3	510.5	-2.2	-2.8	510.7	507.1	-3.4	-3.6
Leverage ratio	109%	121%	147%	37.8%p	25.9%p	122%	148%	1.8%p	26.8%p
Debt	377.5	445.0	459.6	82.1	14.6	445.0	459.6	-	14.6
Cashable assets <sup>(1)</sup>	51.6	29.6	103.5	51.9	73.9	31.4	106.0	2.5	74.6
Net debt <sup>(2)</sup>	325.9	415.4	356.1	30.2	-59.3	413.6	353.6	-2.5	-60.0

(1) Cash and cashable assets + short-term financial instruments + short-term financial assets

(2) Loan-Cashable Assets



## Appendix. Financial statement (2/2)

### Summary of Income Statement

Separated						Consolidated			
(KRW in billions)	23.3Q	24.2Q	24.3Q	YoY	QoQ	24.2Q	24.3Q	Impact	QoQ
Revenue	45.6	86.5	32.0	-29.7%	-63.0%	86.5	32.0	-0.0	-63.0%
COGS	35.6	74.8	26.0			74.8	26.0	-	
Gross Profit	10.0	11.7	6.0	-40.2%	-48.5%	11.6	6.0	-0.0	-48.5%
SG&A	9.4	8.8	8.3			9.5	9.0	0.7	
Operating income	0.7	2.9	-2.3	Turn to negative	Turn to negative	2.2	-3.0	-0.7	Turn to negative
Profit ratio(%)	1.4%	3.3%	-7.2%	-8.6%p	-10.5%p	2.5%	-9.3%	-2.1%p	-11.8%p
EBITDA	4.8	7.3	2.4	-50.7%	-67.3%	6.6	2.0	-0.4	-69.5%
Profit ratio(%)	10.6%	8.4%	7.4%	-3.2%p	-1.0%p	7.6%	6.3%	-1.2%p	-1.4%p
Pre-tax profit	-2.9	0.5	-3.5	Expanding losses	Turn to negative	-0.2	-4.4	-0.8	Expanding losses
Net income-total	-0.8	0.4	-2.8	Expanding losses	Turn to negative	-0.3	-3.7	-0.8	Expanding losses