

**DOOSAN**

Doosan Enerbility Co., Ltd.

# FY2024 Earnings Release and Business Outlook



Please note that this data is prepared for the convenience of investors, and some of the contents may change according to the results of external audits.

This material is prepared as reference material for investors to make investment decisions, and we do not provide any guarantees to investors or assume responsibility for the contents of this material. In addition, we trust that our investors' investments will be made based on their independent and independent judgment.

The financial information in this document is based on Managerial consolidated<sup>1</sup>, IFRS consolidated, and IFRS parent basis.

Note: 1 Doosan Enerbility managerial consolidated : IFRS parent + Overseas Subsidiaries results

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## **1. 2024 Results**

2. 2025 & Mid-term Guidance

3. Mid-term Investments & Financing Plans

4. Core Business & Market Outlook

## 2024 Results Summary – Doosan Enerbility(Managerial consolidated)

- Order exceeded its plan at KRW7.1tn with gas turbine and CCPP EPC, even without large nuclear power plants
- Revenue decreased 3.7% YoY due to termination of large coal EPC, while EBIT (%) increased from improved backlog mix
- Despite recording a net loss mainly due to valuation loss on investment, we have turned to a profit if excluding these items
- Net debt increased due to working capital increase, but at manageable levels

### Results – Doosan Enerbility

(Unit: KRW bn, %)

	2023A	2024A	YoY	'24.3Q	'24.4Q	QoQ
Orders	8,886	<b>7,131</b>	-19.7%	1,283	3,955	+208.2%
Backlog	16,123	<b>15,888</b>	-1.5%	14,174	15,888	+12.1%
Sales	7,652	<b>7,367</b>	-3.7%	1,612	2,241	+39.1%
EBIT	225	<b>244</b>	+19	34	63	+29
(%)	2.9%	<b>3.3%</b>	+0.4%p	2.1%	2.8%	+0.7%p
EBITDA	363	<b>379</b>	+16	66	99	+34
Net Income	-269	<b>-115</b>	+1,54	-44	-1,94	-151
Net Debt	1,906	<b>2,610</b>	+704	3,220	2,610	-609
Liability / Equity	136.9%	<b>140.6%</b>	+3.7%p	128.8%	140.6%	+11.8%p

## 2024 Results Summary – Consolidated

- External uncertainties such as US election and interest rates, along with lower demand and production cuts, led to a decline in Bobcat's performance, resulting in a drop in consolidated profit YoY
- Increase in YoY net debt driven by working capital increase of Enerbility and Bobcat

### Results – Consolidated

(Unit: KRW bn, %)

	2023A	2024A	YoY	'24.3Q	'24.4Q	QoQ
Sales	17,590	<b>16,233</b>	-7.7%	3,396	4,589	+35.2%
EBIT	1,467	<b>1,018</b>	-450	115	235	+120
(%)	8.3%	<b>6.3%</b>	-2.1%p	3.4%	5.1%	+1.7%p
EBITDA	1,841	<b>1,410</b>	-431	211	340	+129
Net Income	518	<b>395</b>	-123	-27	-61	-34
Net Debt	2,024	<b>2,854</b>	+831	3,620	2,854	-766
Liability / Equity	127.3%	<b>125.9%</b>	-1.4%p	122.2%	125.9%	+3.7%p

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# Mid-to-Long Term Market Changes and Business Portfolio Strategy

With continued growth in electricity demand backed by electrification and growth in AI Data Center, Doosan plans to expand our business in line with the trend of increasing zero-carbon energy

## Power Generation Market Forecast

### Consistent increase in global electricity demand

- Continued expansion of electrification<sup>1</sup>
- Additional increase in electricity demand expected due to expansion in AI Data Center

※ Global electricity generation capacity forecast:  
( '24) 9,789GW → ('30) 13,591GW<sup>2</sup> (40% ↑)

### Concrete plan for global zero-carbon power supply

- Nuclear power plants, Gas + CCS, Clean hydrogen recognized as carbon-neutral power sources<sup>3</sup>
- US setting targets for nuclear plant expansions<sup>4</sup>, EU planning to re-adopt and reinforce nuclear power plants
- Progress in Korea-led CFE global standardization<sup>5</sup>

### Facility expansion focusing on domestic zero-carbon sources

- 11<sup>th</sup> Electricity plan raises targets for zero-carbon power sources (nuclear, hydrogen, etc.)
- Introduction of hydrogen power generation by opening a bidding market for clean hydrogen power generation

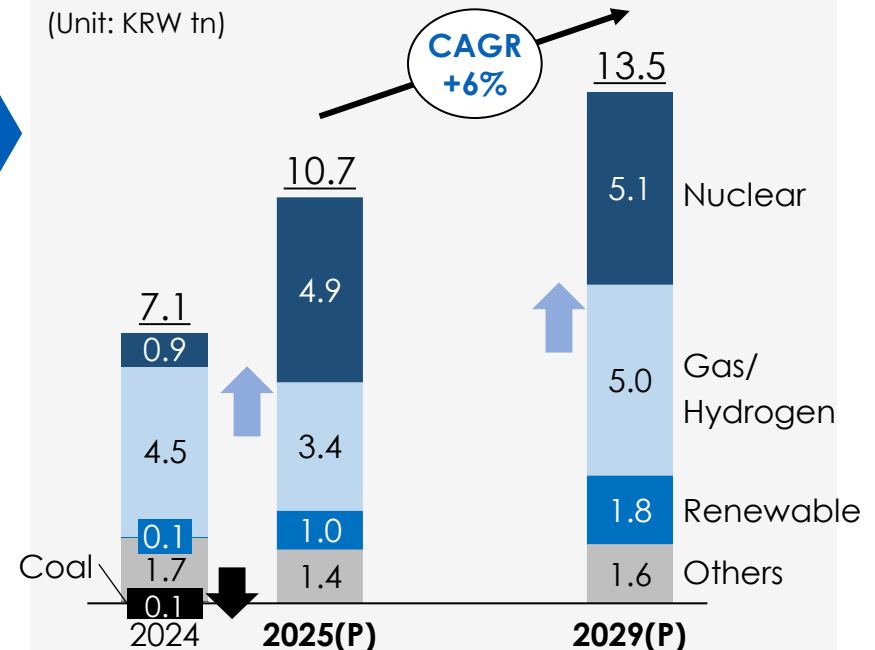
- Electricity demand increase from 25,000TWh (2030) to 43,000TWh (2050) due to EV expansion and industrial process transition
- Source: S&P Global Energy and Climate Scenario 2024
- Mentioned as a zero-carbon energy, later reaffirmed at G7 Climate Ministers' Meeting
- US Gov.'s announcement on its nuclear roadmap, w/ 200GW deployment by 2050 (Nov. 2024)
- Global working group launched to develop standards and secure support from 12 countries / institutions including the UK, Japan, and IEA (Oct. 2024)

## Mid-to-Long Term Business Plans

### "Business Expansion Focused on Nuclear/Gas"

#### Order Wins and Plans

(Unit: KRW tn)



Due to changes in global energy market, business plan has shifted toward nuclear / gas focused equipment portfolio, with expectations for growth and improved profitability in mid-long term

Doosan Enerbility Financial Initiatives

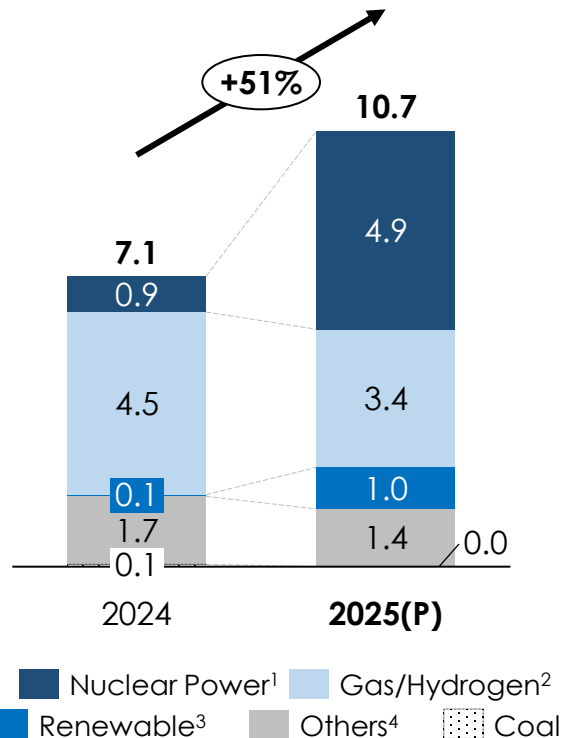
	2024A Results	2025 Guidance		2029 Guidance
Backlog	KRW7.1tn	KRW10.7tn	CAGR +6%	KRW13.5tn
Sales	KRW7.4tn	KRW6.5tn	CAGR +15%	KRW11.3tn
EBIT	KRW243.6bn	KRW373.2bn	CAGR +28%	KRW1,007.9bn
(%)	3.3%	5.8%	+3.1%p	8.9%



Order intake in 2025 is planned to reach KRW10.7tn, an increase of KRW3.6tn compared to the previous year, through the expansion of key projects, such as Czech nuclear project

### 2025 Order Plan

(Unit: KRW tn)



### 2025 Key Projects

Category	Project	Size (KRW tn)
Nuclear	Czech Nuclear(2 Units) <sup>5</sup>	3.8
	SMR	0.5
	Service, etc.	0.6
Gas / Hydrogen	CCPP Equipment	0.6
	Overseas CCPP EPC	1.6
	Parts / O&M / Services	1.2
Renewable	Offshore Wind Power, etc.	1.0
Others	Civil Engineering / Construction / Casting and Forging etc.	1.4

1. Nuclear Power : NSSS, STG, Plant Construction, Services, SMR
2. Gas / Hydrogen : Gas turbine equipment, Gas turbine services, Combined EPC, Combined STG
3. Renewable : Offshore Wind Power (Equipment, EPC, Services), Fuel cells, etc.
4. Others : Civil Engineering / Construction, Casting and Forging, etc.

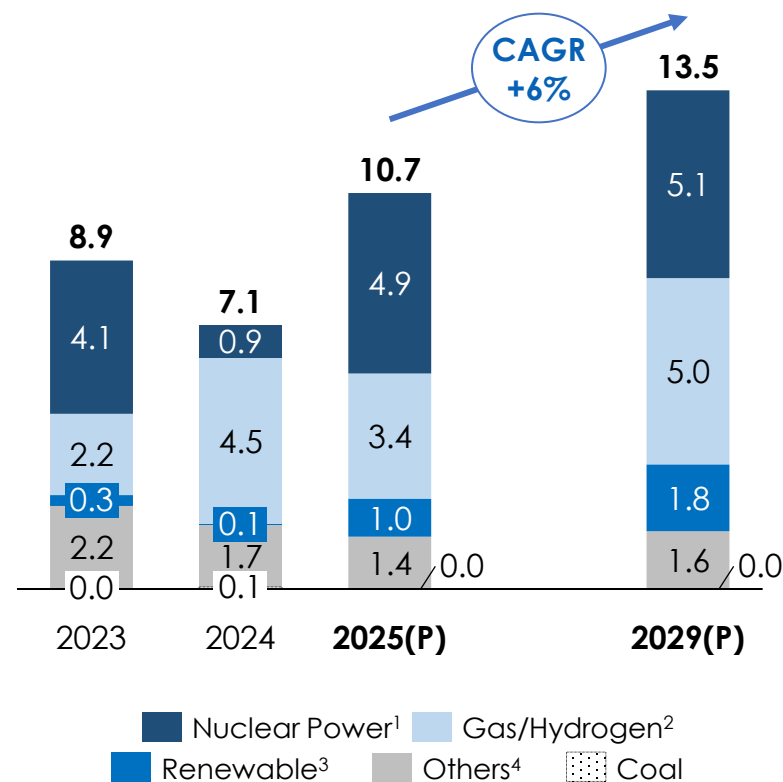
5. Conservative estimate based on the business plan

# Mix Forecast by Energy Sources (1) Orders

Will continue to steer our transition towards high-margin businesses focused on nuclear & gas, laying a strong foundation for enhanced profitability in the mid-to-long term

## Orders

(Unit: KRW tn)



## Key Plans for Growth Businesses

### • Nuclear Power

- Securing large-scale nuclear power plants (NSSS, STG) in line with the domestic / overseas nuclear power plant expansion policies
  - ☞ 2 Units in Czech (2025), 2 Units Overseas (2026), 2 Units Overseas (2027), 2 Units in Korea (2029)
  - ☞ Pursue equipment orders for Westinghouse based on enhanced KR-US nuclear cooperation
- Expansion of both domestic & overseas nuclear power plant construction and service businesses
- Plans to expand SMR supply volume to NuScale, X-Energy, TerraPower, etc.

### • Gas / Hydrogen

- Secure orders of gas turbines / steam turbines to meet short-term surge in electricity demands, alongside orders of hydrogen turbine that are capable of mint-to-long term hydrogen combustion
- Order expansion on high-margin long-terms services linked with Doosan's gas turbines / hydrogen turbines

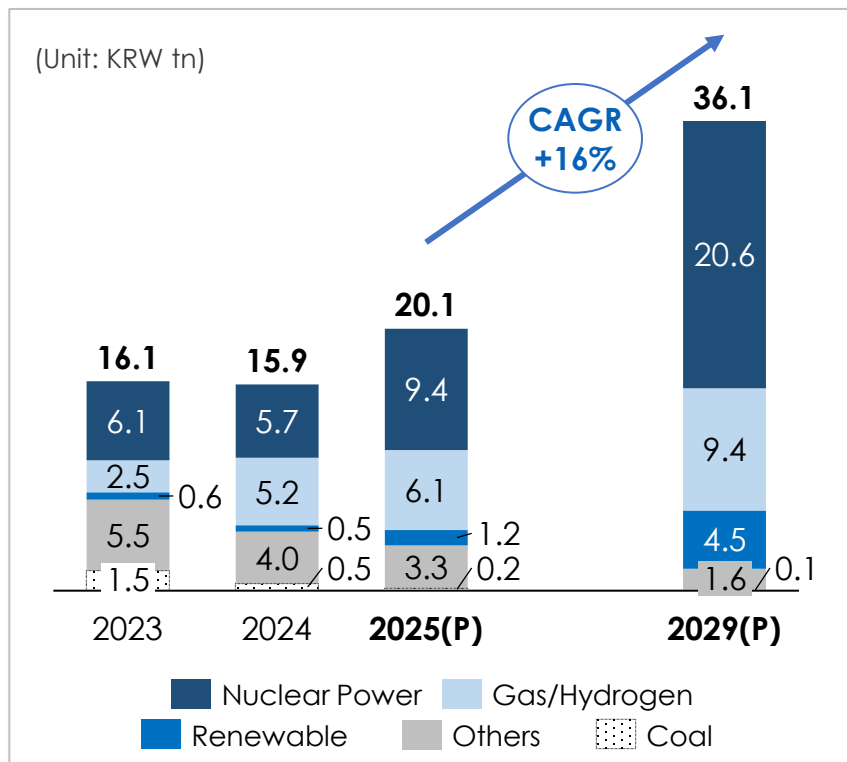
**“Mid-term profitability improvement by focusing on high-margin biz. centered on nuclear / gas”**

1. Nuclear Power : NSSS, STG, Plant Construction, Services, SMR  
 2. Gas / Hydrogen : Gas turbine equipment, Gas turbine services, Combined EPC, Combined STG  
 3. Renewable : Offshore Wind Power (Equipment, EPC, Services), Fuel cells, etc.  
 4. Others : Civil Engineering / Construction, Casting and Forging, etc.

## Mix Forecast by Energy Sources (2) Order Backlogs & Sales

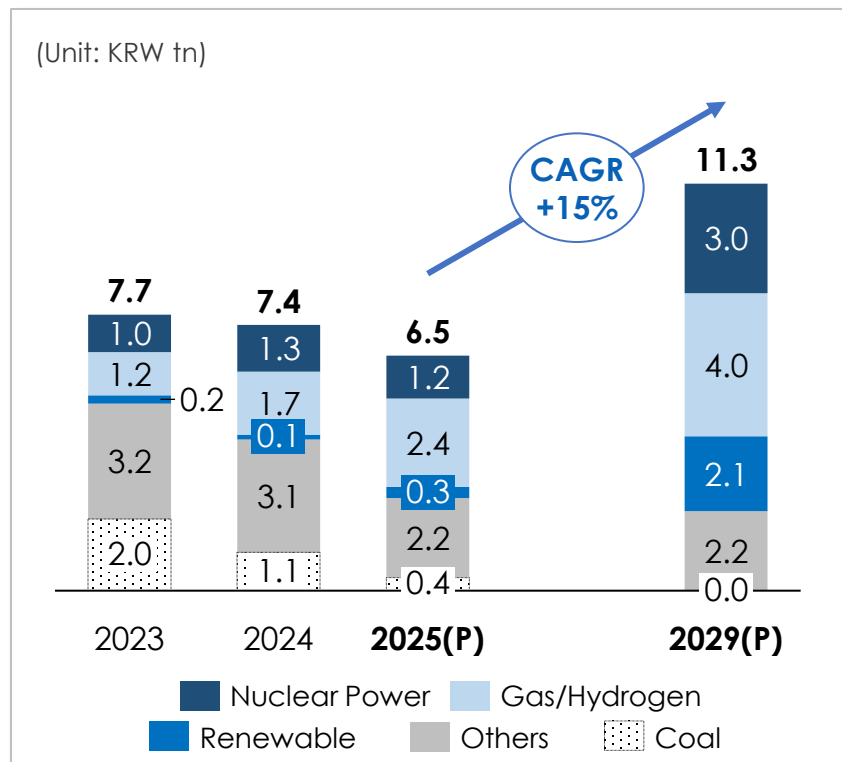
Backlog expected to grow to KRW36tn in 2029, as order intake continues to increase, resulting in mid-term revenue growth. Mid-term profitability improvement expected to be driven by improved backlog mix with the focus on higher-margin equipment

### Order Backlog



- Expansion of the mix of high margin equipment-based business (Nuclear energy, Gas) to lay foundation for mid-term profitability growth
- Coal proportion of total backlog to decrease to less than 1% from 2025

### Sales



- Revenue from Shin-hanul Nuclear #3, #4, and Czech Nuclear to be in full swing
  - Nuclear revenue to increase gradually due to nature of long-delivery projects
- Increase in gas turbine equipment and combined cycle EPC sales, whereas sales from large coal EPC to phase out

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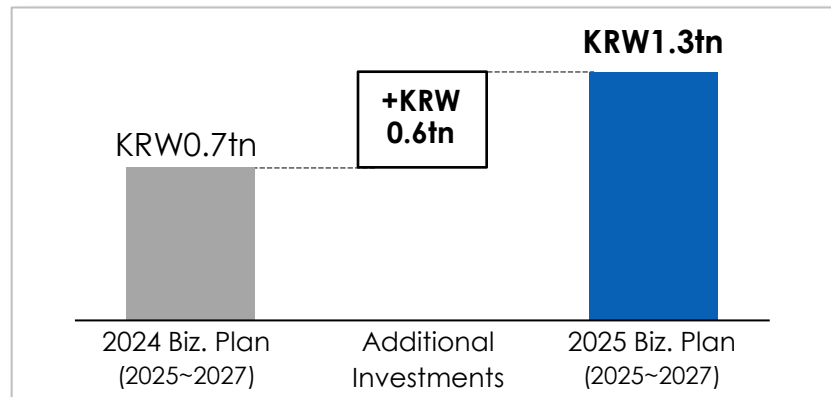
**3. Mid-term Investments & Financing Plans**

4. Core Business & Market Outlook

## Mid-term Investment and Financing Plans

Plans to invest c.KRW1.3tn for the next 3 years, including the additional KRW0.6tn on future growth driver investments (Large Nuclear, SMR, Gas turbines) added from the original investment plan due to changes in market environments

### Mid-term (2025~2027) Investment Plan<sup>1</sup>



### Investment Expansion on Major Growth Businesses

- To secure just-in-time production capacity with nuclear / gas businesses ramp up
  - Securing optimal production capacity to respond to delivery due and volume
  - Facility innovation to shorten production period and secure additional business opportunities
  - Expansion and diversification of the supply chain
- Enhancing competitiveness through developments in core / differentiated technologies
  - Introduction of innovative SMR manufacturing technologies and material development
  - Development of technologies on gas turbine efficiency and carbon neutralization

### Plans to Secure Additional Investment Capacity

#### Sale of non-core assets

- Non-core asset divestitures in progress

#### IPO of overseas subsidiary

- Investment fund recovery through the sale of shares of Doosan Skoda Power's IPO (c. KRW110bn)
- To be utilized for future growth driver investments

- Secure investment capacity for 2025 by selling non-core assets and shares of Skoda through IPO
- Able to utilize facility funds if additional funds are needed based on changes of market environment

1. General investments on facilities such as production plants and R&D, excluding strategic investments such as equity investments

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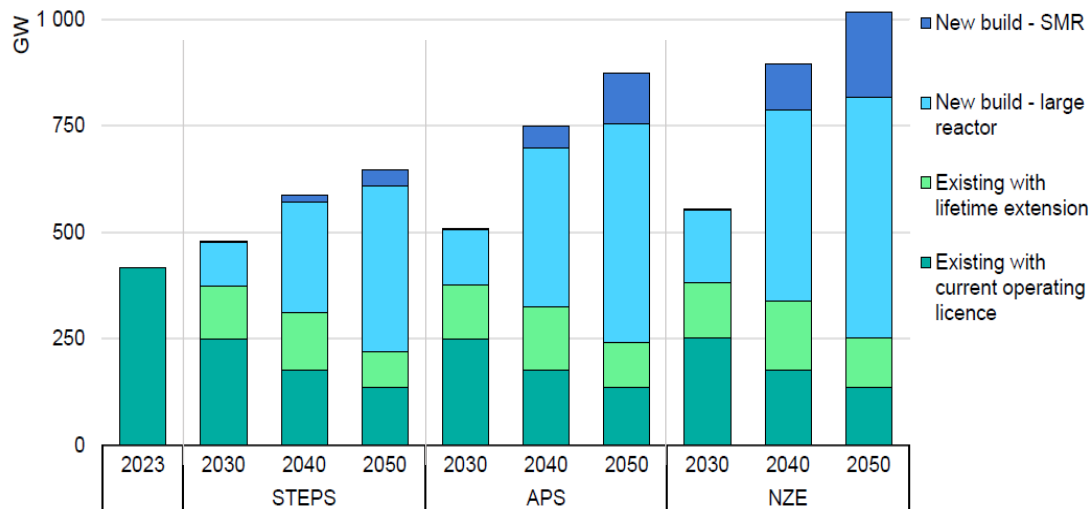
## **4. Core Business & Market Outlook**

- Large Nuclear
- SMR
- Gas Turbine
- CCPP EPC

## Opportunities for orders upside expected to be propelled by the increase in the global nuclear

### Incremental Growth Expected in Nuclear Power Capacity

- With regard to the zero-carbon transition goals, nuclear power capacity is anticipated to grow by 2.5x from 2023 to 2050
- Anticipated expansion in large reactors and the newly-formed SMR market, coupled with an extended lifespan of existing reactors to play a crucial role



IEA. CC BY 4.0.

Notes: STEPS = Stated Policies Scenario; APS = Announced Pledges Scenario; NZE = Net Zero Emissions by 2050 Scenario; SMR = small modular reactor.

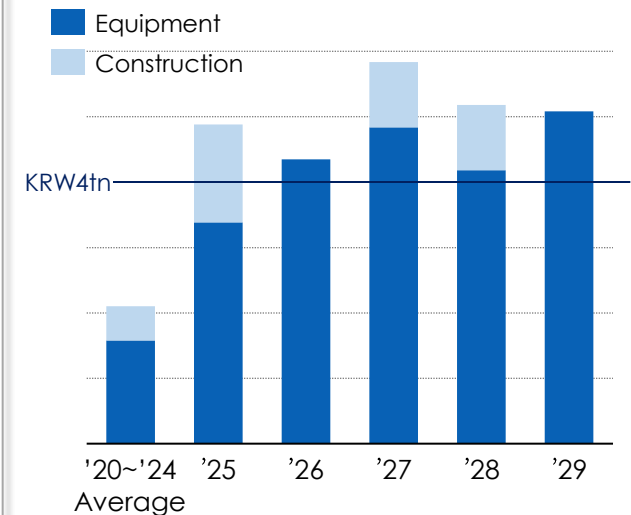
<Global nuclear power capacity by scenario and type, 2023-2050\*>

\*The Path to a New Era for Nuclear Energy, IEA, 2025

### Nuclear Reactor Business Forecasts

**“Annual order volume of KRW4tn to be achieved starting from 2025”**

#### Nuclear Business Orders Plans ('25~'29)



## Expanded opportunities in overseas large nuclear exports and overseas nuclear maintenance projects

### US, Korea Sign MOU for Nuclear Cooperation

- The **signing of MOU on Principles Concerning Nuclear Exports and Cooperation** is expected to accelerate the expansion of overseas nuclear power projects
- As part of US – Korea nuclear cooperation, Westinghouse and KHNP/KEPCO have reached agreements to strengthen their strategic partnership in the global nuclear market



[US–KR Principles Concerning Nuclear Exports and Cooperation, Jan 8<sup>th</sup>, 2025.]

- The Czech nuclear contract expected to be finalized within the year due to strengthened US – Korea cooperation
- Expanded bidding opportunities originated from participations in both KHNP/KEPCO-led projects and Westinghouse-led projects



- Plans to attempt bid with Doosan's established partnership with Westinghouse, track record in equipment supplies and strengthened KOR – US cooperation in nuclear power
  - Underlying potential for order volume expansion when sufficient capacity are met

***“In response to the substantial growth anticipated in the large nuclear and SMR market, business expansions through investment are under devisal including investments equipment and technology”***

### Order History of Overseas nuclear maintenance business

- Romania, Cernavodă nuclear reactor upgrade project (KRW8bn, Apr 2024, Oct 2024)
- Canada, Pickering nuclear reactor upgrade project (KRW81bn, Dec 2024)
- Joined CANDU Owners Group (COG) with an aim to expand opportunities in overseas heavy water reactor projects (Aug 2024)

- Expectations for increased engagement in the upgrade projects for CANDU reactors, with c. 30 operating units worldwide
- Enhanced bidding competitiveness by secured track record of heavy water reactors



**Expected orders of 60+ SMRs for the next five years through cooperations with SMR engineering firms, with additional upside potential from robust growth momentum of the SMR market**

## Project Progress by SMR Type



- The only SMR design to receive approval from NRC<sup>1</sup>
- Expected to be the frontrunner for commercialization
- Multiple ongoing discussions with Big-Tech firms regarding the Romania project

- Secured supply agreements for equipment
- Under preparation for FOAK equipment manufacturing



- 4<sup>th</sup> generation SMR with highly versatile industrial features, capable of concurrent production of high-temp steam and electricity
- Ongoing projects include Dow Chemical project, Energy Northwest project
- Anticipates an accelerated timeline from Amazon's US\$500mn worth investment in X-energy, with an aim to adopt 5GW+ SMR by 2039

- Secured supply agreements for equipment
- Devising complete enhancement and manufacturing plan set-up through manufacturability assessment



- Founded by Bill Gates
- 4<sup>th</sup> generation Sodium-cooled Fast Reactor(SFR) type SMR
- Ongoing projects include Natrium project, Energy Island(recently permitted for the secondary system in Jan, 2025)

- Secured supply agreements for equipment
- Manufacturability assessment on major equipment

## SMR Business Model & Foundry Vision

**Trump promises US\$500bn investment in AI technology and data center infrastructure**

Big-Tech



SMR Engineering Firms



Fabricator

**DOOSAN**

"Global No.1 SMR Foundry"

The global gas power generation market anticipates robust growth, and Doosan has successfully penetrated H-class gas turbine market, further growing the M/S

## Market Trends

### “Stable Growth of Global Gas Power Generation”

- Gas power generation is anticipated to grow globally, as a stable electricity source for rising electricity and AI-related needs

### “Exponential Growth of Large-Scale Data centers”

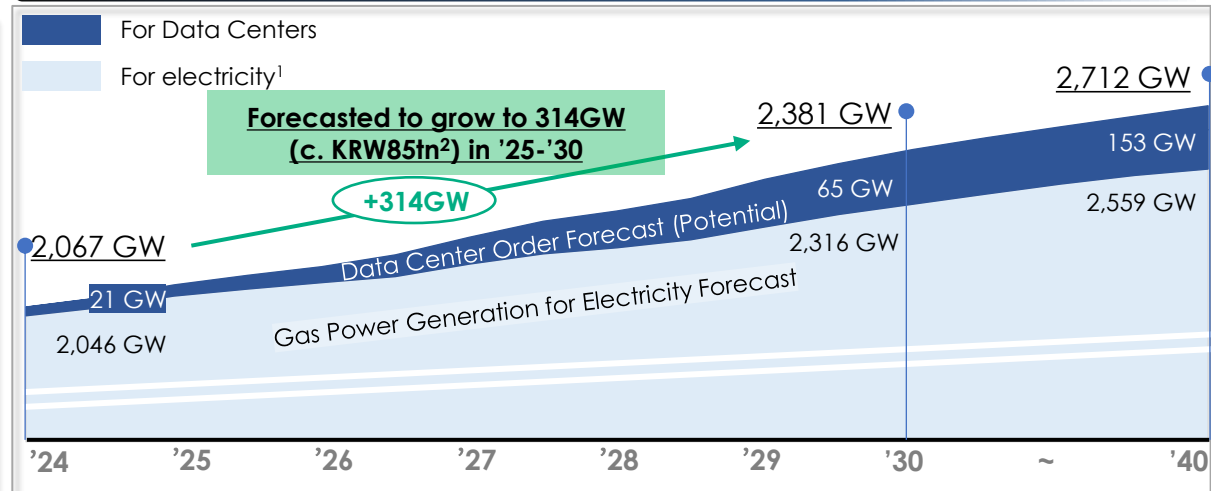
- The rapid expansion of datacenters is significantly increasing the power demand (c. 65GW by 2030), with gas power generation expected to support this need
  - Gas power will remain a primary electricity source by the commercialization of SMRs in '30

### “Successful Entry into the GT Market”

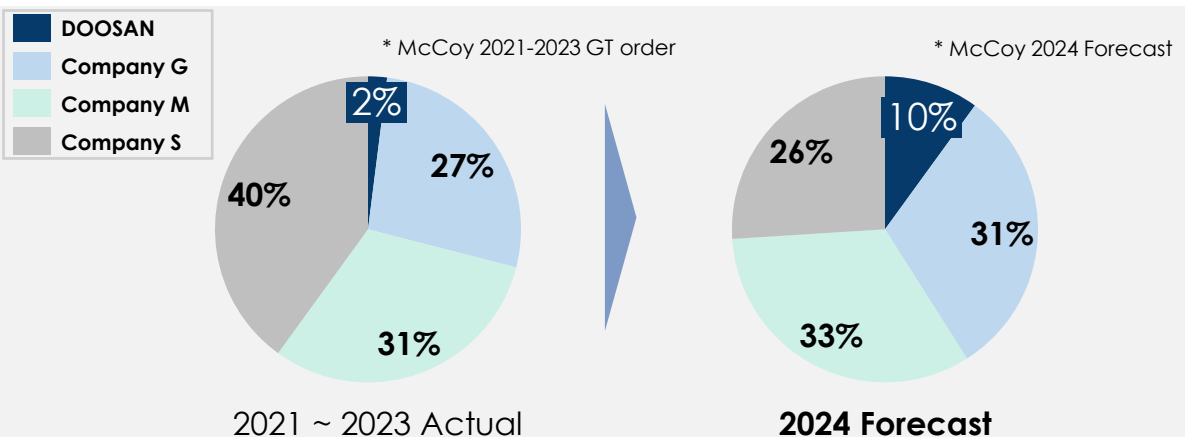
- Doosan has successfully entered the H-class gas turbine market and is actively expanding the business
  - Captured M/S of 10% (67% domestic) with the sale of H-class gas turbine in 2024, following the completion of demonstration in 2023

- S&P Global Commodity Insights Gas power generation capacity (installed, cum.)
- Applied GT World 2024 H-scale GT ASP of 193\$/kW

## Global Gas Power Generation Equipment Forecast (GW, Acc.)



## H-class Gas Turbine Market Share (60Hz)



Secured a cumulative total of 5 gas turbine orders in 2024, marking the full-scale launch of the business; anticipate additional 4 units in 2025

Business Overview<sup>1</sup>

Domestic Market

Market leadership with optimized products

- Business opportunities in large-scale gas turbine based on the 11<sup>th</sup> Basic Plan for Electricity Supply and Demand
  - Utilize domestic gas turbine industry infrastructure to provide stable and cost-effective power plant operations
  - Offer a rapid response system for gas turbine services, ensuring a competitive edge
  - Secure large-scale hydrogen turbines early to provide a zero-carbon solution

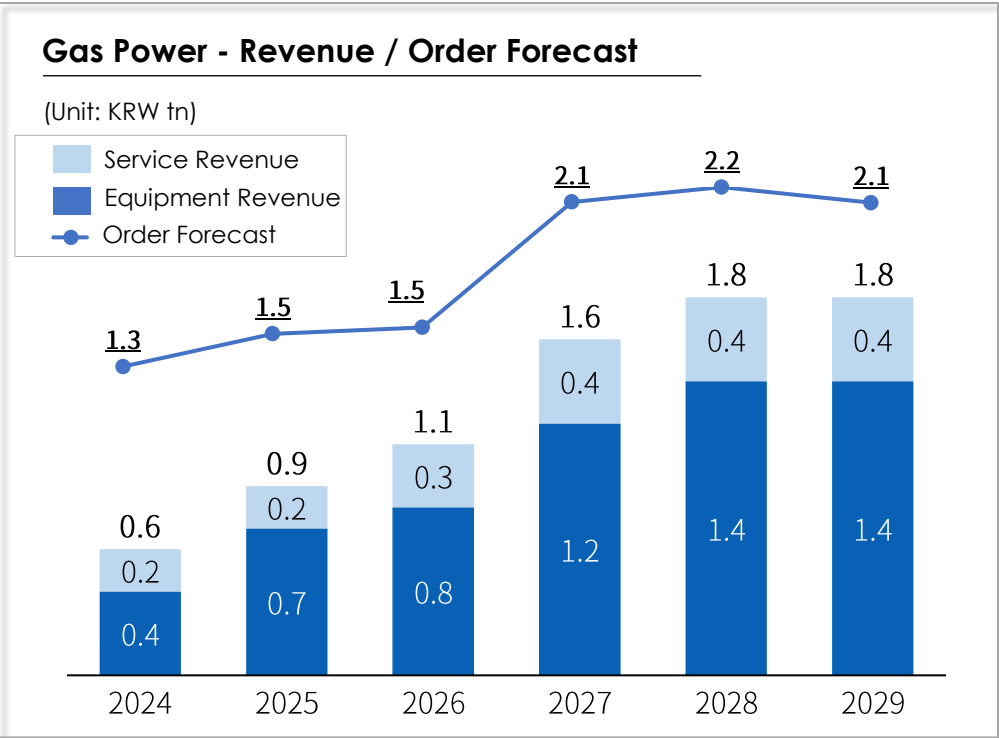
Global Expansion

Global expansion leveraging domestic success

- Currently engaging with major US customers, targeting the world's largest gas turbine market
  - Discussing gas turbine supply for multiple data center developers in the US
  - Expand internationally through "Team Korea" approach

Business Forecast

Gas power revenue is anticipated to consistently grow to KRW1.8tn in 2029, and the order volume is anticipated to reach KRW2tn by 2027



1. Gas power generation equipment : Supplying gas turbine, steam turbine, BOP, etc.

Gas power generation service : Providing comprehensive services for gas power plants (combined cycle and cogeneration), including gas turbines, steam turbines, and generator services

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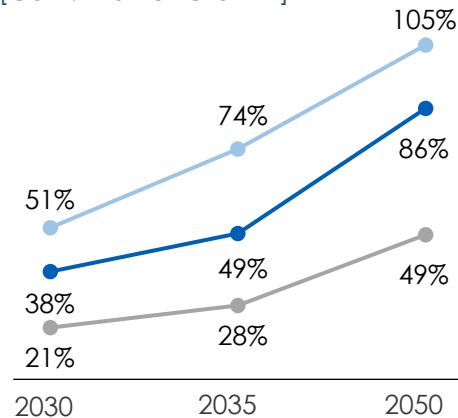
Anticipated to secure KRW8tn in new orders for the next 5 years leveraging the competitive pricing and technological expertise, with growing CCPP market propelled by increasing electricity demand and the global shift towards low-carbon energy, particularly in the Middle East & SEA

## CCPP Market Outlook

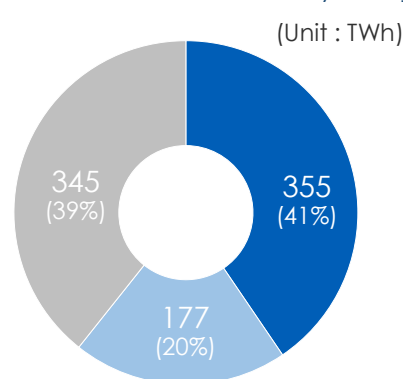
Market Growth Driver

- **Middle East** : Rapid population growth and expansions of data centers& integrated tourism and residential spaces, driving electricity demand
- **Southeast Asia** : Fast economic growth drive electricity demand, while new CCPP capacity additions align with national power development plans

[Cum. Market Growth]



[Power Generation Growth by 2030]



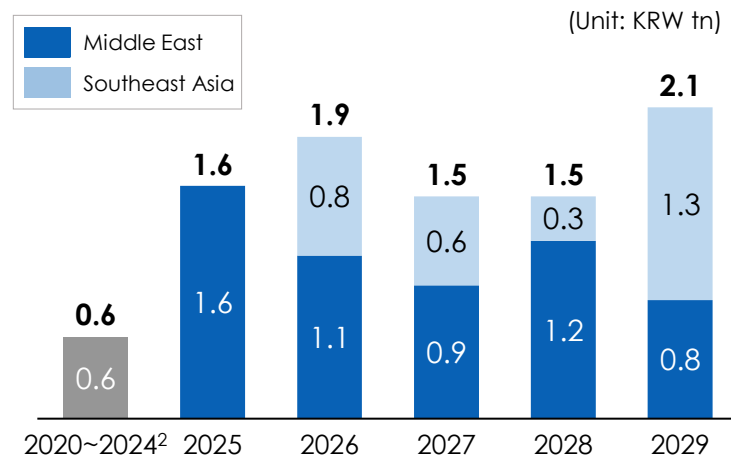
■ Middle East ■ Southeast Asia ■ Other<sup>1</sup>

Source - IEA World Energy Outlook 2024

## CCPP EPC Strategy & Mid-term Order Projections

- Strengthen customer network leveraging local presence in the Middle East & SEA
- Enhance price and technological competitiveness through continuous efficiency improvements, such as AI-driven architecture tools
- Secure profitability by expanding the EPC business to include key equipment such as steam turbines

[CCPP EPC Mid-term Order Plan]



1. Including Central America, Africa, China, India; excluding regions with decreasing CCPP capacities, such as North America and Europe

2. 5-year order average for the Middle East and SEA

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**Appendix. Financial Statements Summary**

## Appendix. Financial Summary

### Balance Sheet – Managerial consolidated

(Unit: KRW bn, %)

	2022	2023	2024	Change
Current Assets	4,314	5,107	<b>4,972</b>	-136
Cash Equivalents	748	1,265	<b>1,010</b>	-255
Non-current Assets	10,562	10,050	<b>10,074</b>	+24
Total Assets	14,876	15,157	<b>15,045</b>	-112
Total Liabilities	8,071	8,758	<b>8,792</b>	+34
Net Debt	2,570	1,906	<b>2,610</b>	+704
Total Equity	6,806	6,399	<b>6,254</b>	-146
Liability/Equity	118.6%	136.9%	<b>140.6%</b>	+3.7%p

### Balance Sheet – Consolidated

(Unit: KRW bn, %)

	2022	2023	2024	Change
Current Assets	8,099	9,642	<b>10,085</b>	+443
Cash Equivalents	1,503	2,740	<b>3,044</b>	+304
Non-current Assets	14,951	14,999	<b>16,261</b>	+1,261
Total Assets	23,050	24,641	<b>26,346</b>	+1,705
Total Liabilities	12,970	13,799	<b>14,684</b>	+885
Net Debt	3,405	2,024	<b>2,854</b>	+831
Total Equity	10,080	10,842	<b>11,661</b>	+820
Liability/Equity	128.7%	127.3%	<b>125.9%</b>	-1.4%p

## Appendix. Financial Summary

### Income Statement – Standalone

(Unit: KRW bn, %)

	2023	2024	YoY	3Q24	4Q24	QoQ
Order	7,988	<b>6,383</b>	-20.1%	1,031	3,760	+264.6%
Backlog	14,693	<b>14,756</b>	+0.4%	12,981	14,756	+13.7%
Revenue	6,652	<b>6,320</b>	-5.0%	1,350	1,985	+47.1%
EBIT	455	<b>393</b>	-615	76	137	+62
(%)	6.8%	<b>6.2%</b>	-0.6%	5.6%	6.9%	+1.3%
EBITDA	565	<b>501</b>	-643	102	164	+62
Net Income	-104	<b>-170</b>	-661	14	-345	-360

### Balance Sheet – Standalone

(Unit: KRW bn, %)

	2022	2023	2024	Change
Current Assets	3,538	4,052	<b>4,074</b>	+21
Cash Equivalents	394	807	<b>696</b>	-111
Non-current Assets	9,652	9,633	<b>9,709</b>	+76
Total Assets	13,190	13,685	<b>13,782</b>	+96
Total Liabilities	7,076	7,760	<b>8,046</b>	+286
Net Debt	2,851	2,257	<b>2,824</b>	+567
Total Equity	6,114	5,925	<b>5,736</b>	-189
Liability/Equity	115.7%	131.0%	<b>140.3%</b>	+9.3%

