

DOOSAN

Doosan Enerbility Co., Ltd.

Investor NDR

DOOSAN



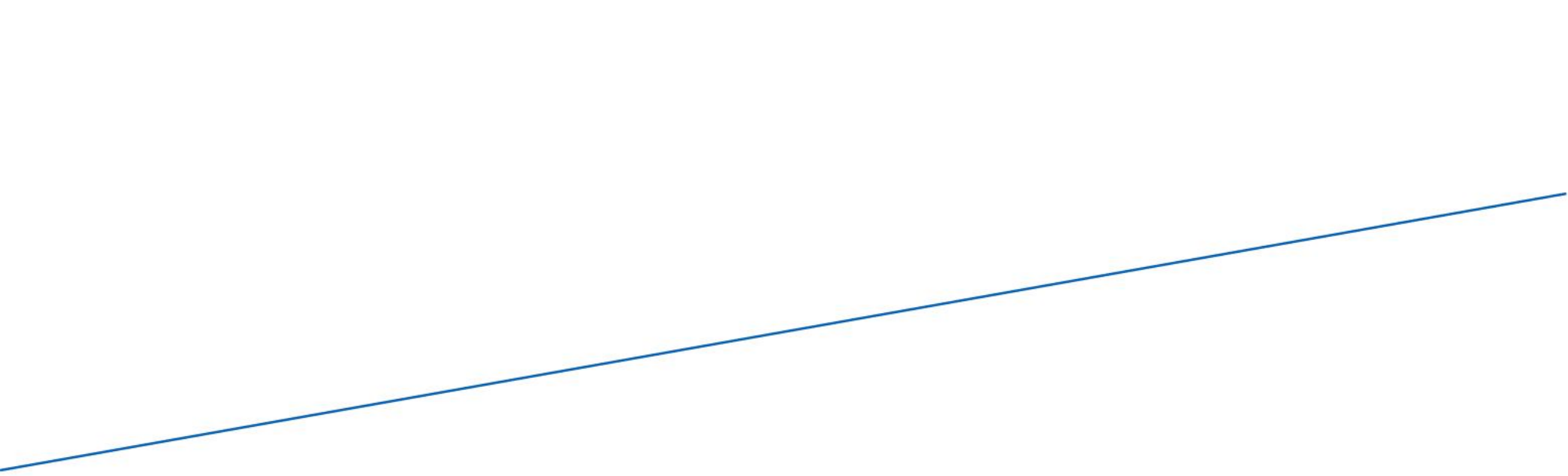
2024.08

Disclaimer

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⁽¹⁾, IFRS consolidated, and IFRS parent basis.



1. Company Overview

Doosan Group: Key Business Pillars and Growth Strategy

"New **DOOSAN**" - Three Pillars for Future Growth

Clean Energy

Transformation to sustainable energy solution provider

- Next-gen nuclear power plant (SMR)
- Gas turbine
- Renewables
- Hydrogen

"Carbon Neutrality, Electrification"

Smart Machine

Strengthening competitiveness through advanced technology

- Construction equipment electrification/automation
- Cobot business
- Logistics automation
- Hydrogen fuel cell drone

"Smart Equipment, Robot, Automation"

Advanced Materials





Semiconductor + Advanced Materials business expansion

- Total semiconductor OSAT⁽¹⁾
- Mobile/communication/advanced materials for semiconductors



"Semiconductor, Electronic Devices"

Doosan Enerbility's Core Business Portfolio


4 Key Growth Drivers

Gas turbine	Renewables	Next-gen Nuclear (SMR)	Hydrogen
			
<ul style="list-style-type: none">✓ Development of highly efficient turbines✓ Acceleration of transition to hydrogen turbines	<ul style="list-style-type: none">✓ Offshore wind business expansion✓ Entry & expansion into the Renewables development business	<ul style="list-style-type: none">✓ Competitive SMR Foundry establishment	<ul style="list-style-type: none">✓ Securement of hydrogen energy technology✓ Clean hydrogen provision business

New Businesses

Production Innovation	Circular Economy
	
<ul style="list-style-type: none">✓ Expansion of the Metal Additive Manufacturing (AM) business	<ul style="list-style-type: none">✓ Lithium extraction from waste batteries✓ Resource recycling business

Enabler

Digital	
	<p>Optimization of Big Data & AI Utilization</p> <ul style="list-style-type: none">✓ Prediction/Inspection✓ Digital Twin

Doosan Enerbility's Organizational Structure & Core Businesses

Business Structure

Nuclear BG

- Key nuclear plant components
 - Nuclear reactor, steam generator, etc.
- Next-gen nuclear power plant (SMR, etc.)
- Forging & casting materials

PLANT EPC BG

- CCPP⁽¹⁾ EPC / Nuclear power plant construction
- Renewables / Hydrogen
- Desalination
- Civil / Construction

Power Service BG

- Power generator components
 - Gas turbine, steam turbine, power generator, wind turbine, etc.
- Generator performance enhancement / maintenance service

Core Businesses

Nuclear Power



Combined Cycle Power



Wind Power



Desalination

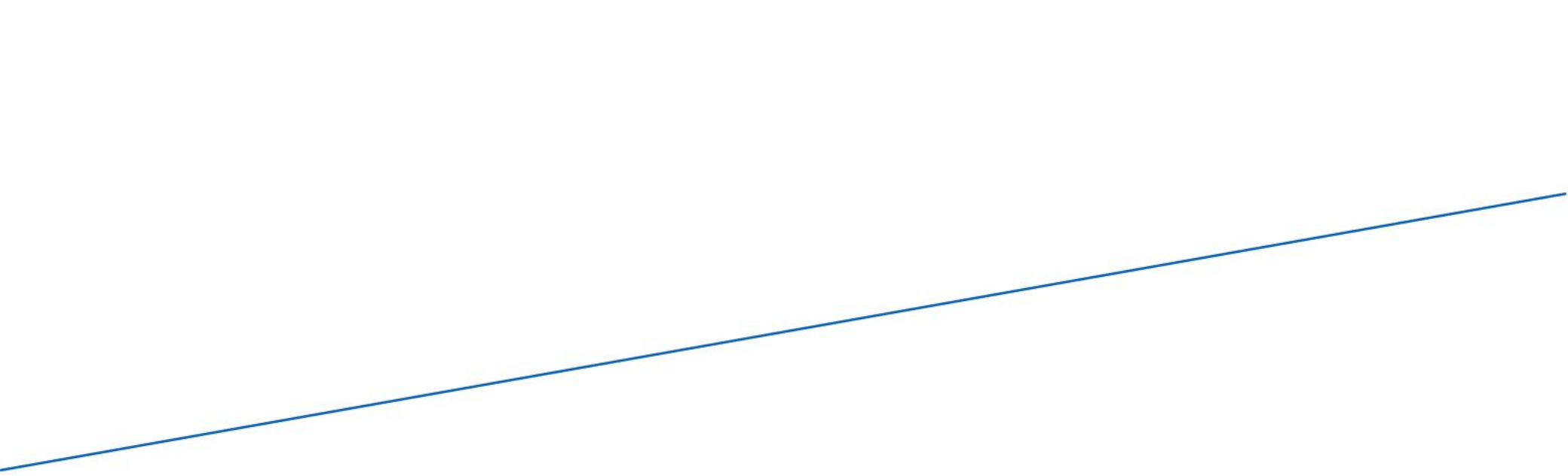


Gas Turbine



New Business



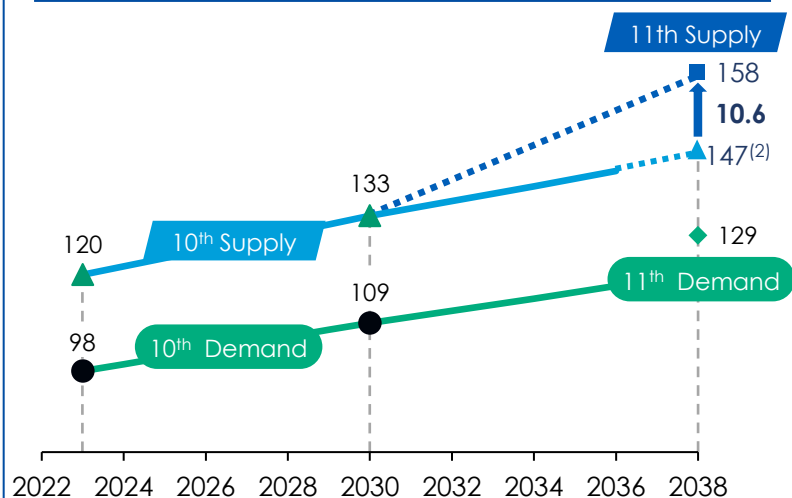


2. 2024 2Q Highlights

1 2 3 4 Working Draft for 11th Basic Plan for Supply and Demand⁽¹⁾

Target Demand and Supply

[Unit: GW]

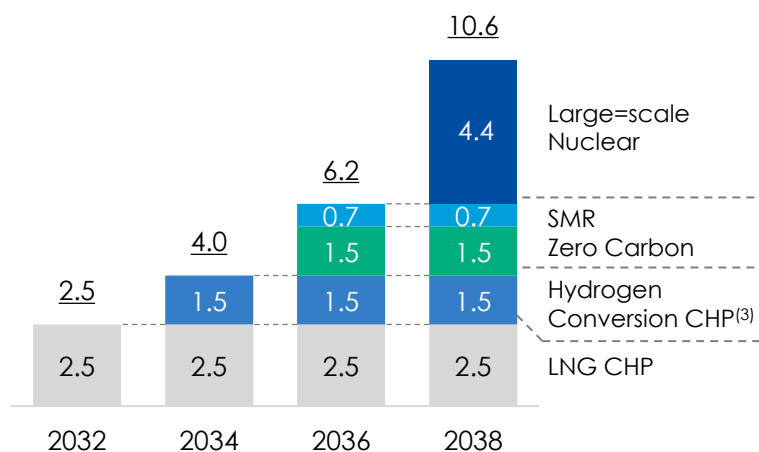


Business Opportunity

- **Increased Supply Target in 11th against 10th**
 - 10.6GW increase for Electrification and Data Center
- **Plan for Zero Carbon Power Source (10.6GW)**
 - **Opportunity for Doosan's Zero Carbon Portfolio**
 - New Large Nuclear Plants (up to 4.4GW during '37~'38)
 - i-SMR in development by Doosan (0.7GW in '36)
 - More opportunity for Hydrogen Turbine and Ammonia firing (up to 3GW during '33~'36)
- **Continuous supply of GT/Renewables from 10th Plan, further opportunity in GT and Renewables equipment**
 - Continue to replace CFP⁽³⁾ with LNG CCPP (14.1GW by '36)
 - Consistent increase of Wind (1.9GW in '22 → 40.7GW in '38)

New Build Supply Capacity

[Unit: GW]



(1) Working Draft of to plan announced on 29th May led by the steering committee (5/29)

Expect to finalize the plan by '24 after approval of Power Policy Committee

(2) Supply Capacity of 13.2GW (e.g., 119.5GW of installed capacity; PV 74.8GW / Wind 40.7GW of renewable source is included within the total supply target of 147GW

(3) CHP: Combined Heat and Power / CFP: Coal Fired Power Plant

Expects further European orders with successful announcement of the project

Project Overview

Czech Nuclear Project

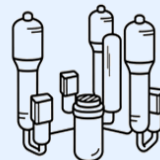
- **Scope** : Dukovany Unit 5 and 6
- **Location** : South East of S.Moravia
- **Sponsor** : Elektrárna Dukovany II
- **Type** : APR1000 (1,000MWe)
- **Contract Date** : March 2025
- **Target Completion** : October 2036



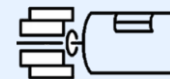
Doosan as a member of Nuclear Team Korea

- **The largest project for Team Korea**
 - Budget of KRW12tn per unit, which is 170% of UAE Barakah
 - Further expansion expected for 2 units of Temelin and additional SMR
 - The single largest project received with Equipment and construction
- **Further Nuclear Business Opportunity in Europe**
 - Proof of Technical/Price competitiveness compared to US and France
 - Strong localization advantage with TG supply from Doosan Skoda
 - Seek to achieve further projects in Poland, Sweden and Netherland

Equipment



T/G

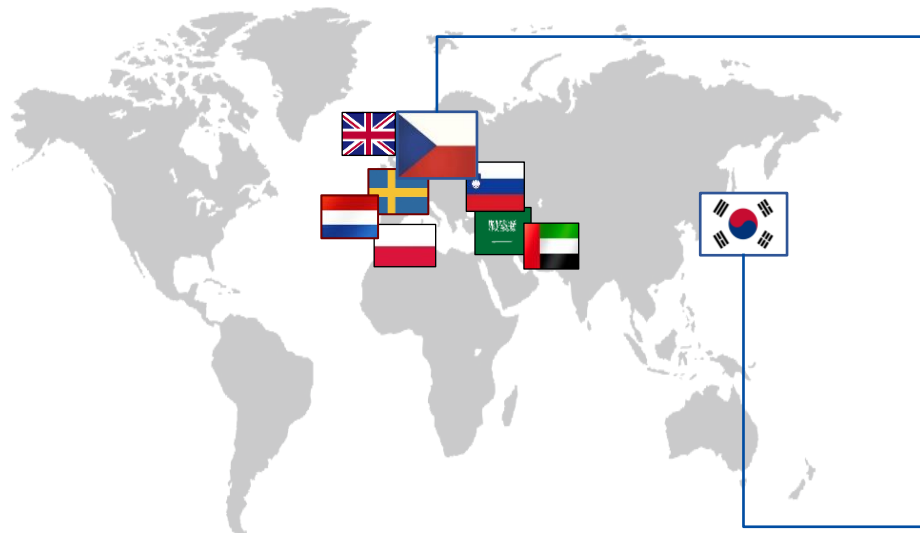


Construction



[Supply Scope of Doosan]

Continuous efforts for overseas large-scale nuclear including Czech Dukovany Project.
Newly added nuclear power project plans are included in 11th Basic Plan domestically



[Czech] Selected as Preferred Bidder

- **Jul. '24 : Selected as Preferred Bidder**
- Expected to submit contract draft updates in 90 days
- End of '24 : Negotiation for terms and price (KHNP)
- **Mar. '25 : Sign contract between Sponsor and KHNP**
- Mid. '25 : Sign supply contract between KHNP and Doosan

[Domestic] New Nuclear included in 11th Plan

- **Announced Working Draft for 11th Basic Plan (31st May)**
 - 0.7GW of SMR during '35~'36 included
 - 4.4GW of large nuclear projects, e.g. 3 units, included for '37~'38 with APR1400 type

[New Project] Target for new nuclear

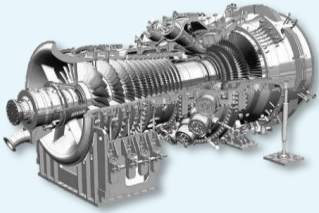
- **Strong sales activity ongoing for countries like Poland, UK, UAE, Saudi, Finland, Slovenia, etc.**
- Further activities in Sweden and Netherland
 - Sweden : Proposed Korean Nuclear RFI (Mar. '24)
 - Netherland : Feasibility study ongoing for K-Nuclear

1 2 3 4 Doosan Gas Turbine("GT") Business

Stable revenue anticipated as the highly profitable long-term service orders materialize by leveraging Doosan Enerbility's gas turbine core component OEM business and its presence as a gas turbine operator

Gas Turbine Equipment Business

Equipment Business Overview



Concentration of cutting-edge technology
High entry barrier with only 5 players⁽¹⁾ possessing independent technology

- The company has its own 90MW, 270MW, 380MW gas/hydrogen turbine model

Current Business Status

- Supplying gas turbines, the core technology for CCPPs and CHPs in **integration with the service business for 30 years of operation period**
- **Taking new orders based on the success of Gimpo CHP in July 2023, with market expansion expected from increasing power demand**
- **Pursuing global leadership in zero-carbon power** by developing the world's 1st large-scale hydrogen full-combustion turbine

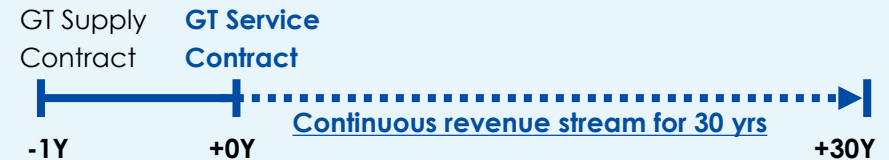
Key Characteristics

- **Generates electricity by rapidly rotating the turbines with high-temperature(1600.C+) exhaust gas produced by burning NG/hydrogen**
 - Comparably⁽²⁾ **flexible power supply based on its prompt operation**
 - Electricity and thermal energy supply with **high energy efficiency**
 - Relatively **short construction period (3-years from commencement)**

Gas Turbine Service Business

Service Business Structure

Providing value-added replacement parts and plant operational service⁽³⁾



Exclusivity

- GT Service market is dominated by **OEM Technology holder**
 - No case for non-OEM service provider to enter 380MW high efficiency GT class

Profitability

- Based on OEM technology, **expects high profit stream** over operational life span
 - A competitor ("G") is securing 30~40% profits in GT Service business

Stability

- **Securing stable revenue generation** throughout operation (over 30 years)
 - Regular parts replacement required due to nature of GT

Expects stable recurring revenue from GT service business as GT business is picking up

Note: (1) Doosan Enerbility(Korea), GE(U.S.), Siemens(Germany), Mitsubishi(Japan), Ansaldo(Italy)

(2) Compared to other power sources including nuclear, coal, wind, solar, etc.

(3) 24 hours power plant monitoring system(RMS, Remote Monitoring System)/ power plant evaluation and performance analysis system/ gas turbine auto tuning, etc.

1 2 3 4 Doosan GT Business Orders Overview

GT Business is gaining traction with recognition of strong technology and 5 new GT supply contracts signed in 2024

GT Supply Status

Achieved accumulated KRW1.0tn order received based on successful completion of Gimpo CHP track records in Jul. '23

Hydrogen / GT Track Records

■ OEM Biz. ■ Service Biz.

- Jun. '23: Boryug CCPP (KRW260bn)
- Jan. '24: Andong CCPP (KRW280bn)
- Jun. '24: Boryung LTPM (KRW120bn)
- Jun. '24: Andong LTSA (KRW87bn)
- Jun. '24: Budang CCPP (KRW260bn)
- Jul. '24: Haman CCPP (KRW580bn)

2Q '24
Results



**Bundang CCPP
(Modernization)**

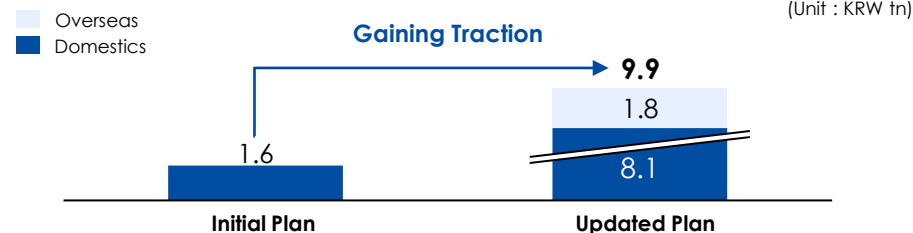


**Haman CCPP
(EPC)**

Taking off GT Business

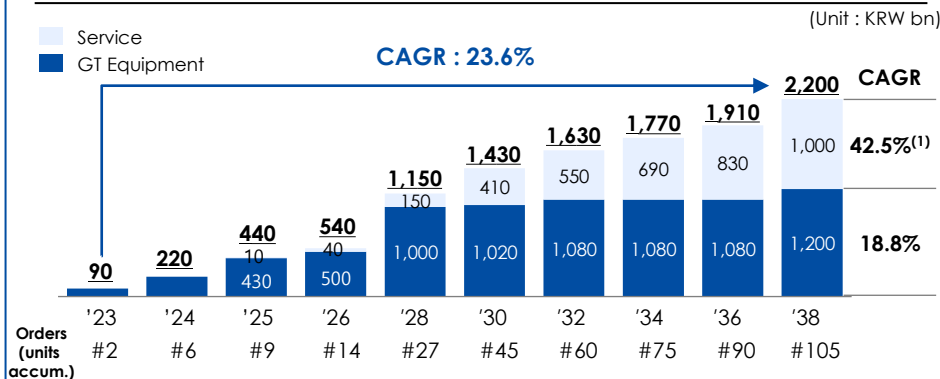
Expect to accumulated order of KRW10tn by 28E with strong growth and further expansion expected with demand for Carbon-Free Energy and Data Center

GT Business Forecast ('23~'28, Accum.)

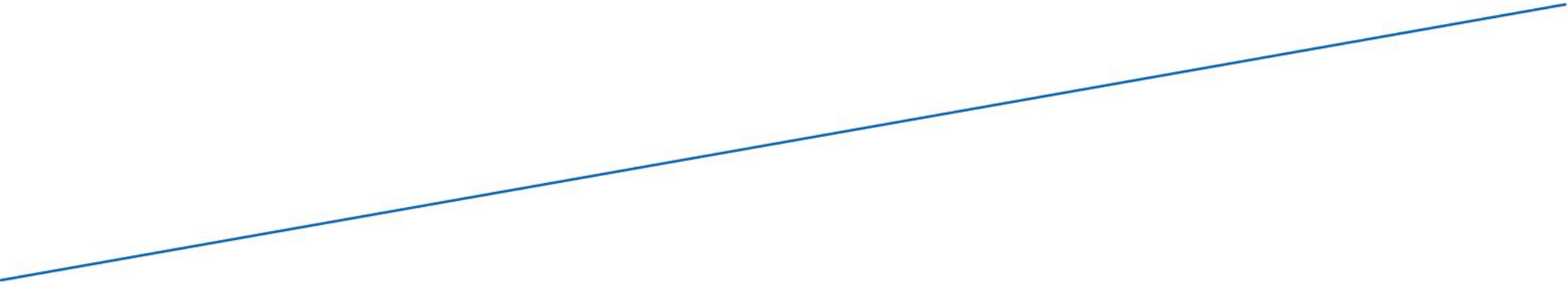


Continuous expansion expected in GT/GT Service and further opportunities in EPC with Engineering/construction capabilities

DGT Business Forecast



Note: (1) Service CAGR Period ('25 ~ '38)



3. 2Q24 1H Financial Results

2024 1H Results Summary - Managerial Consolidation

- Orders changed YoY due to base effect of large PJT orders⁽¹⁾ in '23
- EBIT increased thanks to increased portion of high profit nuclear, GT and services in portfolio
- Net profit increased YoY thanks to revaluation gains on investment in NuScale stock

Summary

(Unit: KRW bn, %)

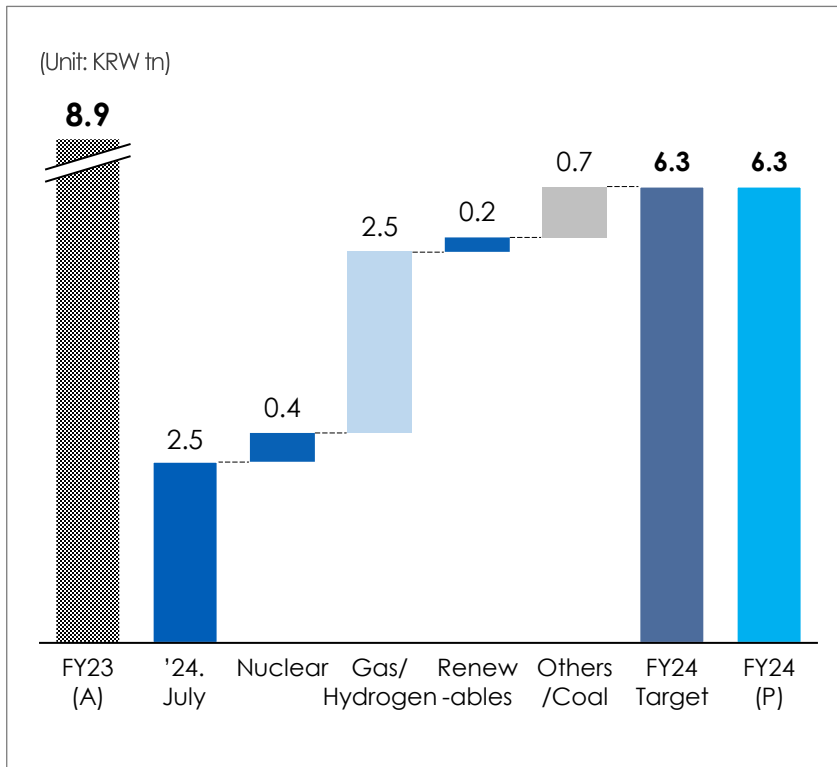
	'23.1H	'24.1H	YoY	'24.1Q	'24.2Q	QoQ
Order intake	5,164	1,897	-63.3%	634	1,264	+99.4%
Backlog	16,606	14,528	-12.5%	15,079	14,528	-3.7%
Revenue	3,469	3,515	+1.3%	1,700	1,814	+6.7%
EBIT	119	146	+23.2%	74	72	-2.7%
(%)	3.4%	4.2%	+0.8%p	4.4%	4.0%	-0.4%p
EBITDA	188	214	+27	107	107	-0.3
NI	34	123	+89	72	51	-21
Net Debt ⁽²⁾	1,906	2,527	+621	1,993	2,527	+534
D/E Ratio ⁽²⁾	136.9%	131.7%	-5.2%p	136.6%	131.7%	-5.0%p

Note: (1) Shinhanul #3,4 nuclear power plant key components (c.KRW3tn), Kazakhstan CCPP (c1.1tn)
(2) Net Borrowing based on year end '23 B/S results

July '24 Cumulative Order Intake • Annual Forecast – Enerbility

- Achieved KRW2.5tn orders from GT, domestic/overseas service and CCPP⁽¹⁾ new build as of July '24
- Maintaining annual target KRW6.3tn based on high probability target projects incl. Nuclear and CCPP
- Expect to achieve annual order target backed by On-hand PJTs

Order Intake & Annual Forecast



'24 Remaining Order Forecast

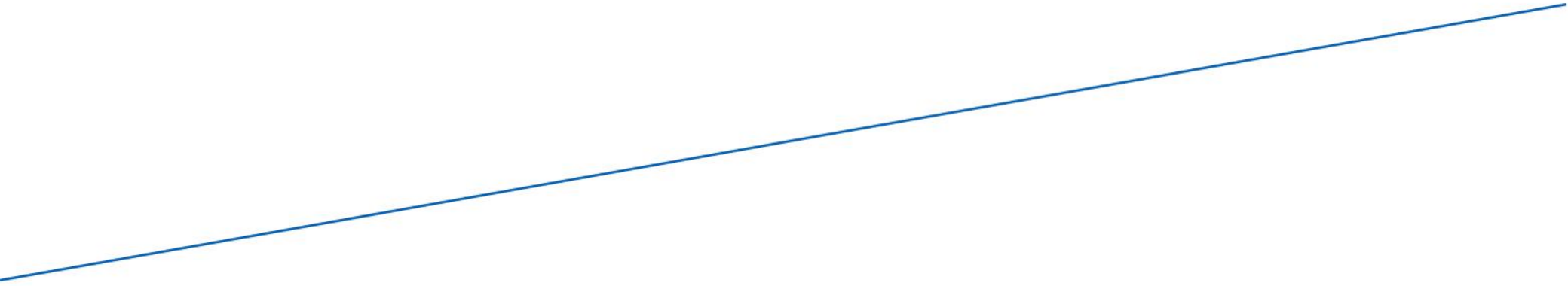
(Unit: KRW tn)

Nuclear	SMR & Others	0.4
Gas /Hydrogen ⁽²⁾	Domestic Transitional CCPP	0.3
	Domestic/overseas CCPP EPC	1.7
	Service/O&M/Parts	0.5
Renewables	Handong Wind Turbine	0.2
Others ⁽³⁾	Civil/Const., C&F, Defense, Sub	0.6
Coal	Service/Parts	0.1

Note: (1) Bundang CCPP GT Supply (KRW0.3tn), Haman CCCPP GT and EPC (KRW0.6tn), Boryung GT LTPM (KRW120bn), Andong GT LTSA (KRW87bn), etc.

(2) Gas Turbine / Hydrogen Turbine / Co-firing

(3) Subsidiaries, Civil and General Construction, Casting & Forging Product, Defense, etc.

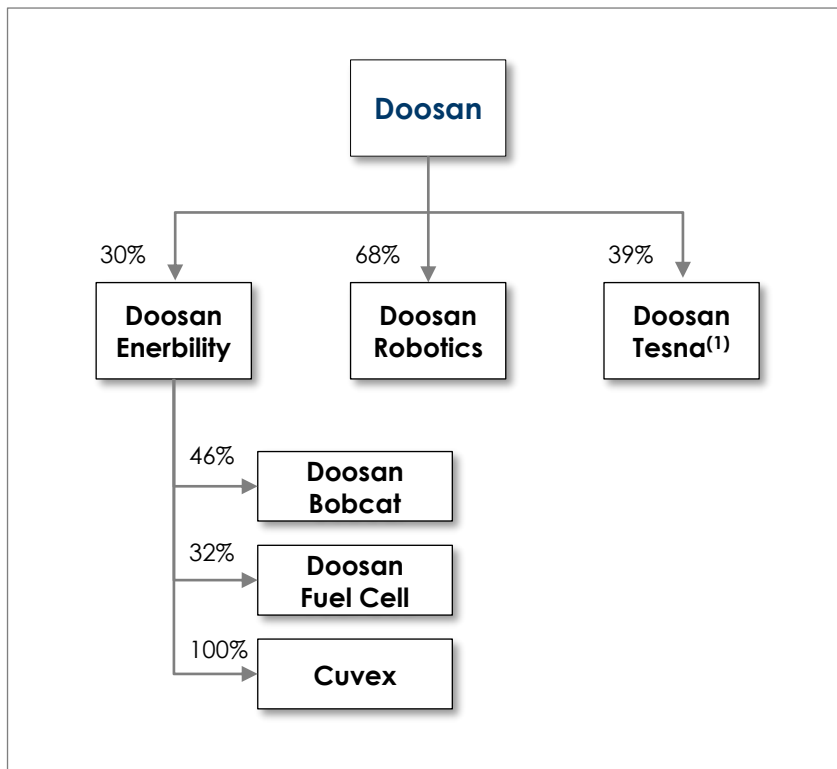


4. Expected Effects

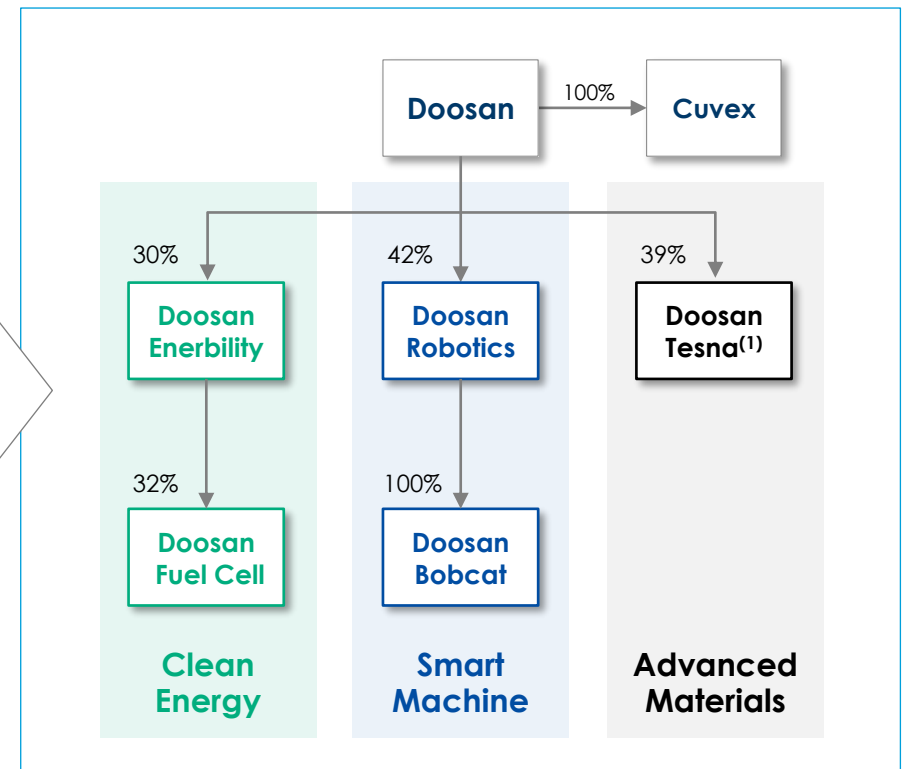
Business Reshaping Plan

Reinforcement of synergy within segments, by reorganizing the business structure into three pillars of “New Doosan”

As-is



To-be

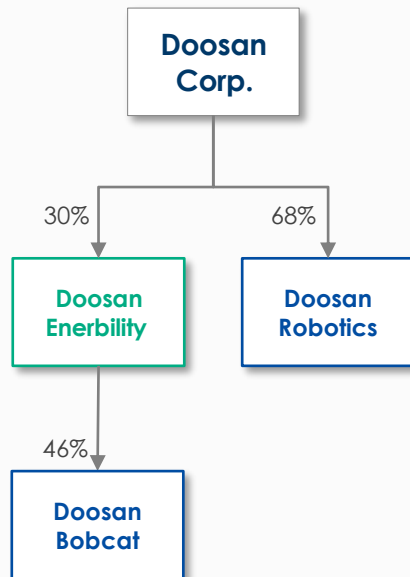


Note: Stake % based on shares with voting rights; assuming no appraisal rights will be exercised
(1) Financing vehicle 'Doosan Portfolio Holdings' excluded

Spin-off/merger and comprehensive stock exchange

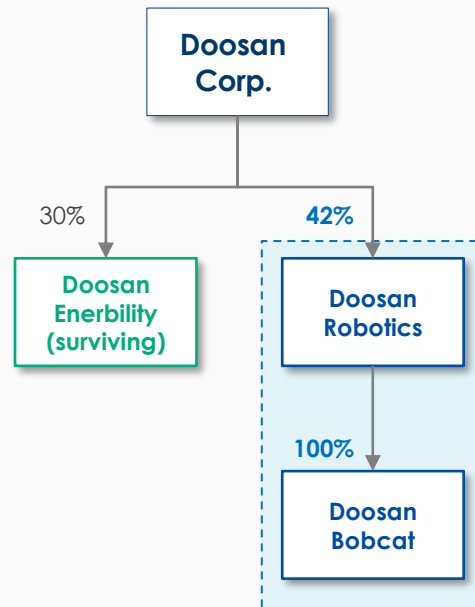
Doosan Enerbility is split into an ongoing concern and a new entity that merges with Doosan Robotics

As-is



- ✓ Doosan Enerbility: 46% stake in Doosan Bobcat
- ✓ Doosan Corp.: 68% stake in Doosan Robotics

To-be



- ✓ Doosan Corp.'s stake in Doosan Robotics drops to 42%
- ✓ Businesses are integrated between Doosan Robotics and Doosan Bobcat

Doosan Enerbility's background

1. Eco-friendly/high-margin business portfolio

- ✓ Large nuclear power plant: Successful order track record; expected to keep winning orders home & abroad
- ✓ SMR/GT business expansion

2. Very sound power generation market at home and abroad

- ✓ Massive power shortage due to data center expansion for AI and other applications creates a favorable environment for orders
- ✓ Beneficiary of carbon-free energy trend

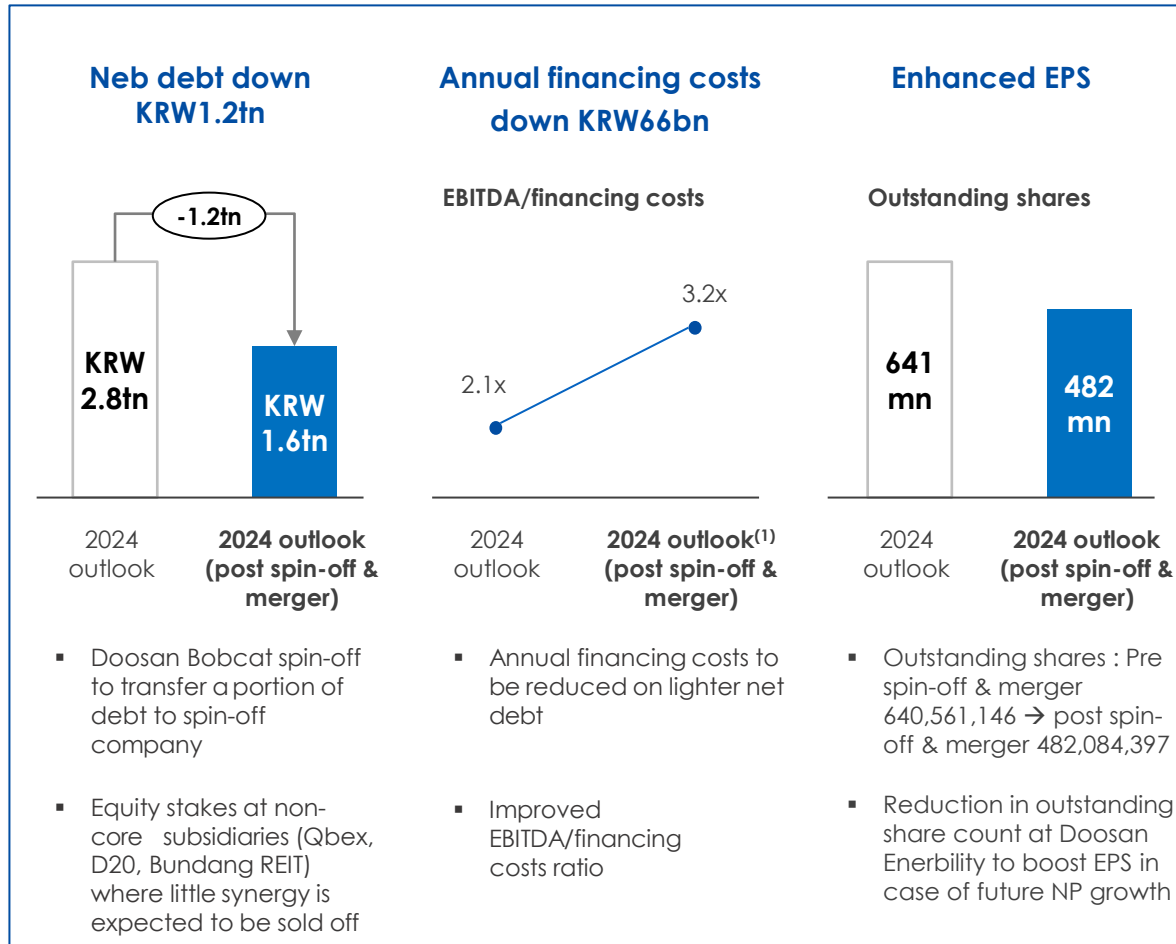
3. Greater need for early investment to get a head start in the market

- ✓ Must invest early in capacity and technology to establish a solid foothold in the rapidly growing nuclear energy, SMR and gas turbine market
- ✓ Must make a push to increase borrowing capacity

4. Restructured governance to allow Doosan Enerbility focus on core energy-related operations

- ✓ Doosan Enerbility set to be free from the intermediate holdings company role, and focus on its core energy businesses with its subsidiary Doosan Fuel Cell
- ✓ Doosan Enerbility would now be rated in the market based on separate earnings, and rerating could serve as a cornerstone of larger growth.

Expected impacts



- ✓ Financial solvency improved on governance restructuring
- ✓ Rooms increased in credit line (total KRW480bn~KRW780bn)
- ✓ More concentrated on **future growth engine** (nuclear power, gas turbine), enabling **early investments**
- ✓ Mid-term **business portfolio realigned**

Note: (1) Assuming 12 months worth of financial cost savings

Doosan Enerbility Future Roadmap

1 Investment on nuclear power facilities and technologies (large-scale, SMR)

- Incremental capacity ramp-up planned as increased large-scale nuclear and MR projects maxed out capacity after 2025

⇒ SMR Foundry targeting 2027 for mass production capabilities

2 Expansion of GT / GT Service Business

- **Gas Turbine**
 - Full swing kick-off with successful operation of Gimpo CHP
- **GT Service**
 - Stable long-term source of income secured with award of the LTSA Boryeong CCPP

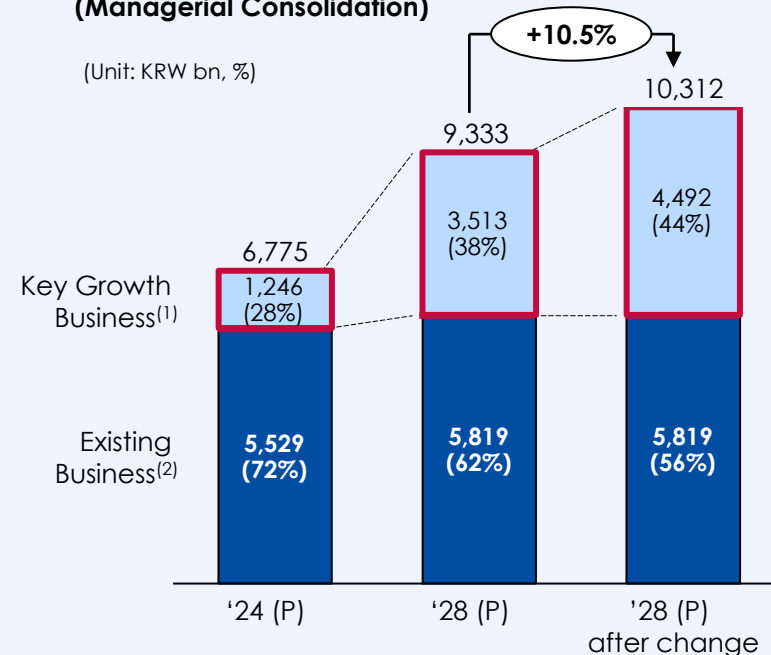
⇒ Capacity ramp-up to take place in tandem with order increase

Realignment of mid-term business portfolio

- Top-line to be up by 10.5% compared to previous plan through CAPEX on growth business
- Larger lucrative growth business to accelerate profitability upturn

Doosan Enerbility revenue outlook (Managerial Consolidation)

(Unit: KRW bn, %)



Note: (1) Large-scale nuclear, SMR, GT/GT Service
 (2) CCPP, Casting & Forging, Defense, Renewables (Wind), Civil Construction, Water Desalination, etc.

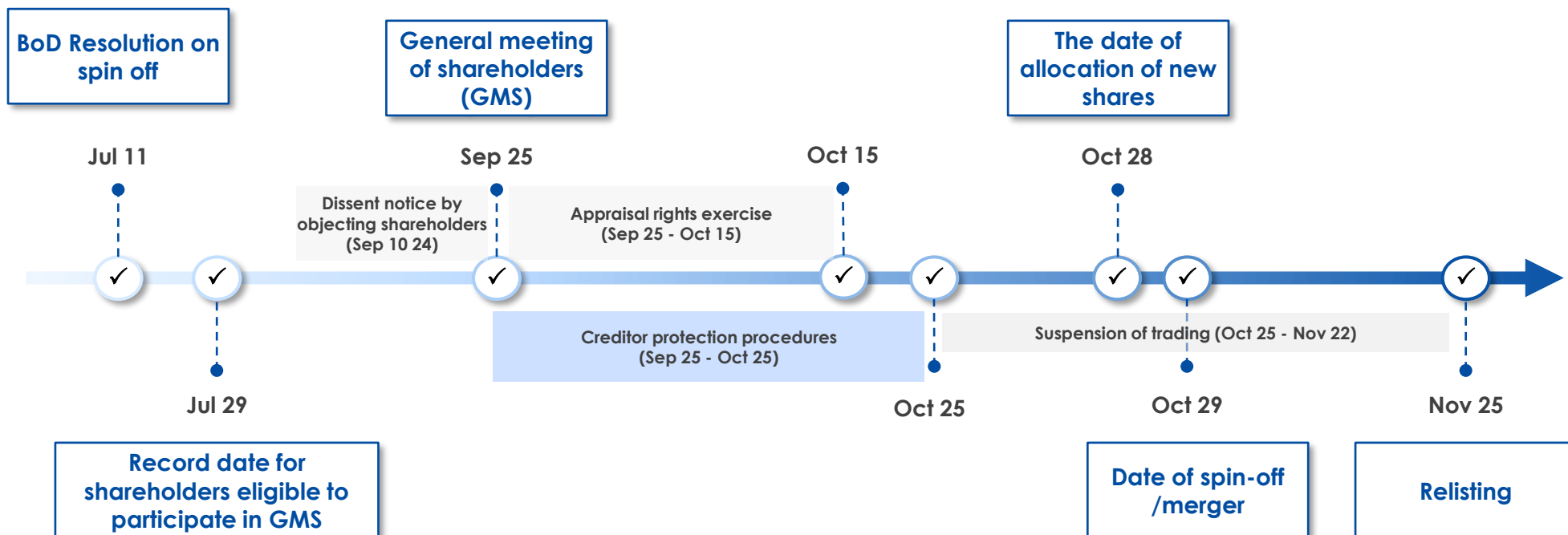


Appendix – Transaction Schedule & Spin-off Merger Ratio

Key Events

Scheduled to complete relisting in November 2024 after the BoD resolution on spin off on July 11 and the general shareholders' meeting on September 25.

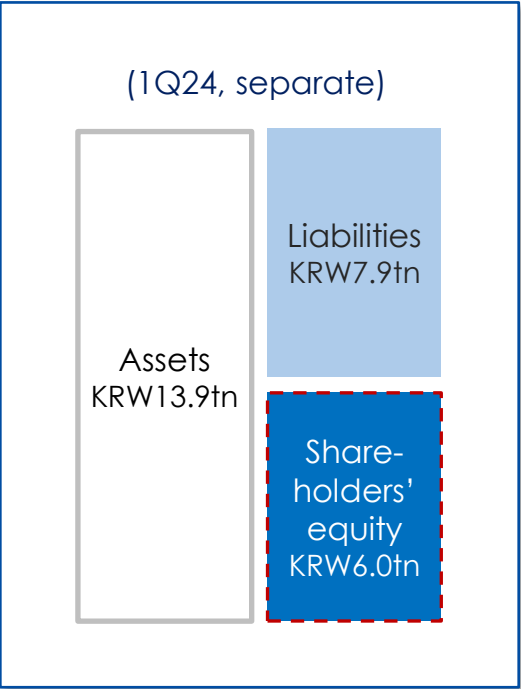
- Shareholders who acquired shares prior to the disclosure of the BoD resolution (July 11) and by the next business day (July 12) following the disclosure are eligible for the appraisal rights for dissenting shareholders
- Shareholders holding shares of Doosan Enerbility as of October 28 (the date of allocation of new shares) are eligible to receive shares of Doosan Robotics.
- Relisting of Doosan Enerbility shares and listing of new shares of Doosan Robotics on November 25



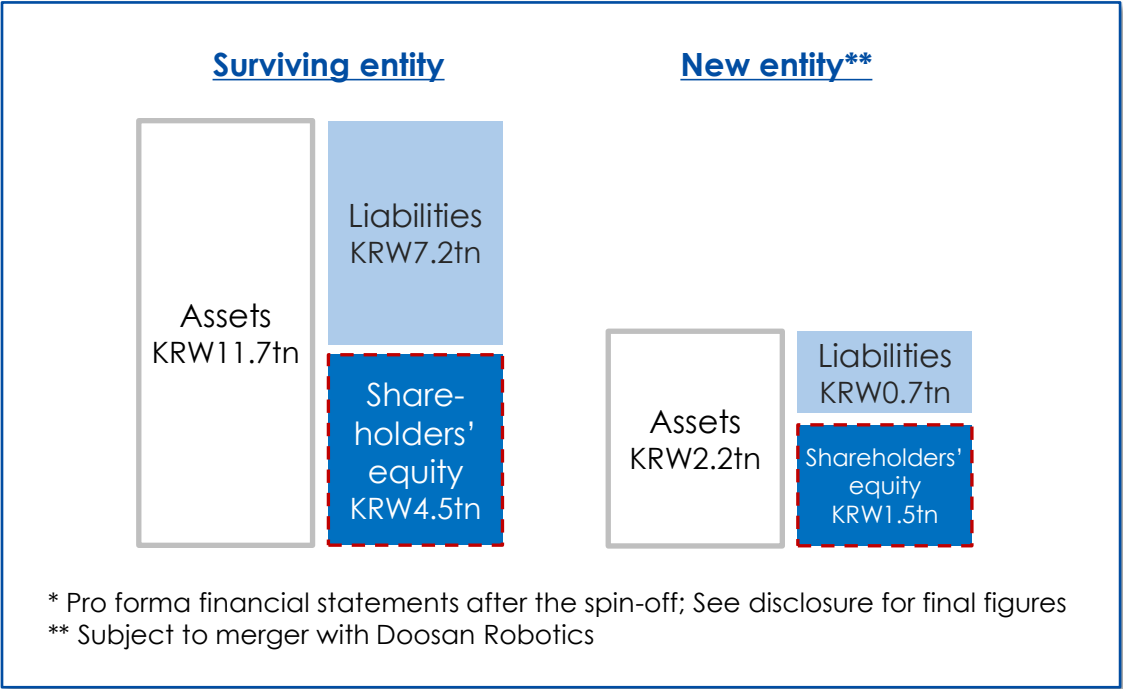
Spin-off ratio

Spin-off ratio calculated by the Net Asset ratio based on book value; Shareholder value of Doosan Enerbility, the surviving entity, is retained

Pre-spin



Post-spin*

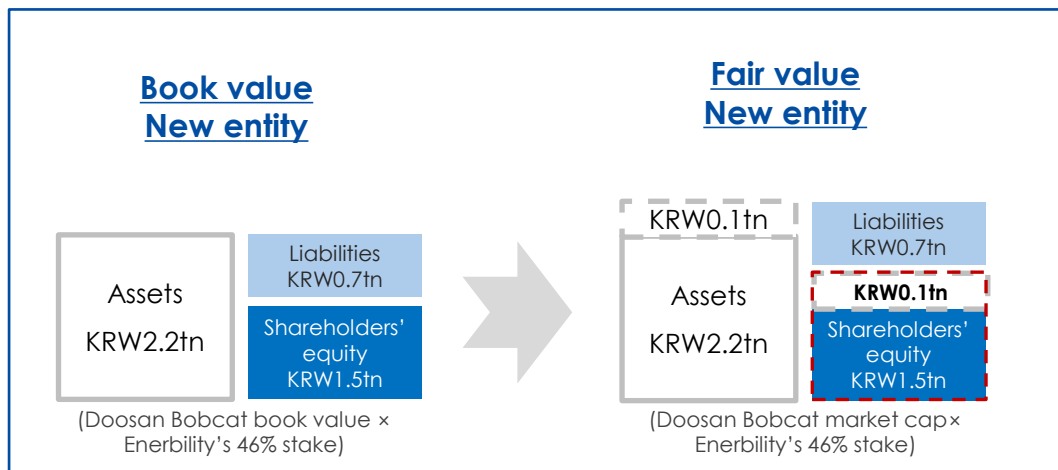


Spin-off ratio of **1:0.2474030**

Merger Ratio

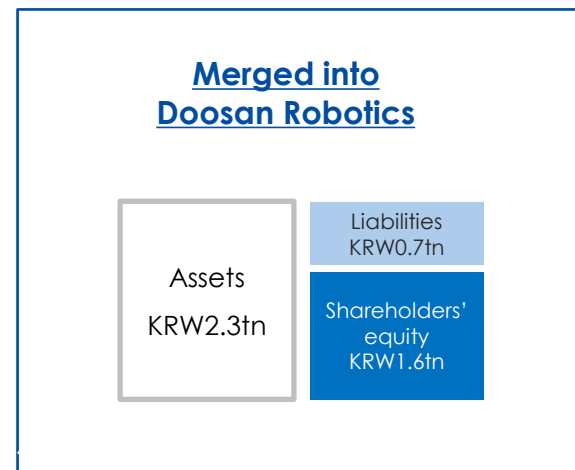
Instead of the book value (KRW 47,600/sh), Doosan Enerbility's stake in Doosan Bobcat will be revalued based on the fair value (KRW 50,612/ sh) for the merger. After excluding the transferred liabilities, the asset value of the merged entity is derived to be KRW1.6tn

Pre-merger



Market cap	KRW1.6tn
# of shares	158,476,749
Base price*	10,221

Post-merger



Market cap	KRW1.6tn
# of shares	20,219,377
Base price*	80,114

Merger ratio of **1:0.1275856⁽¹⁾**

Note: (1) Merger ratio based on the base price ratio of merged companies