

Doosan Enerbility Co., Ltd.

Investor NDR

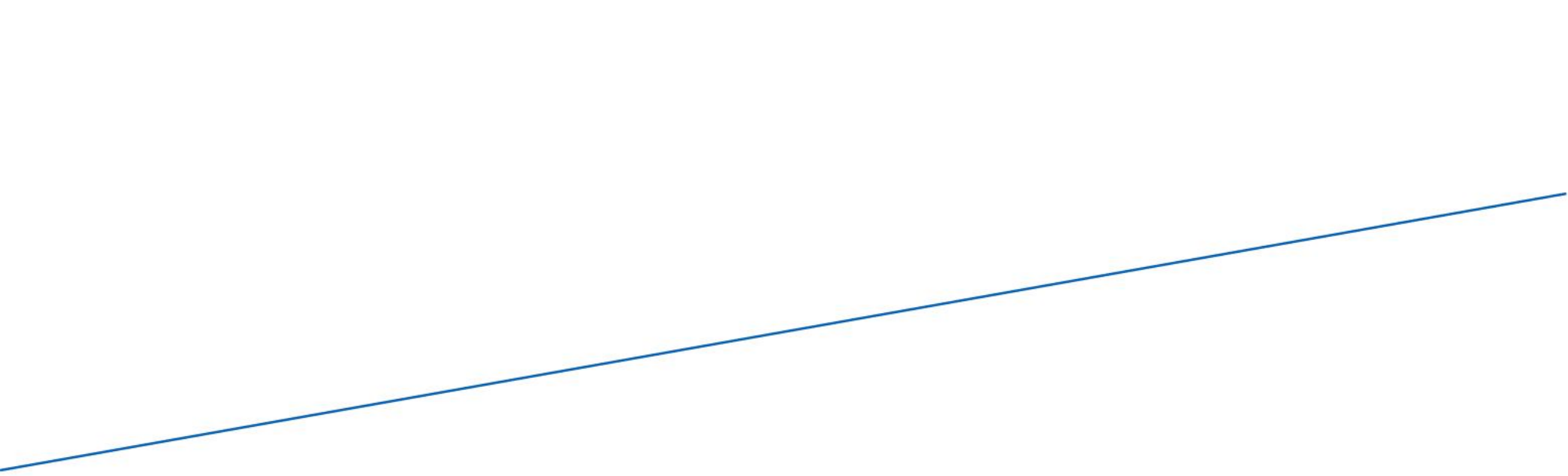


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This material is prepared as reference material for investors to make investment decisions, and we do not provide any guarantees to investors or assume responsibility for the contents of this material. In addition, we trust that our investors' investments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

The financial information in this document is based on Managerial consolidated¹

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



1. Company Overview

INTRODUCTION

DOOSAN ENERBILITY

Global top-tier energy solution provider

- 1962~1980 **Established in 1962**
Frontier of Heavy-machinery manufacturing in the country
- 1981~2000 **Owned and run by government**
(Growth along with industry)
- 2001~2007 **Privatization (Doosan Acquisition)**
Expansion to the global market
- 2008~2019 **Global power & water solution provider**
- 2020~ **More focused on**
sustainable & carbon-neutral biz portfolio
New start as Doosan Enerbility (2022)

Doosan Tower (Bundang)



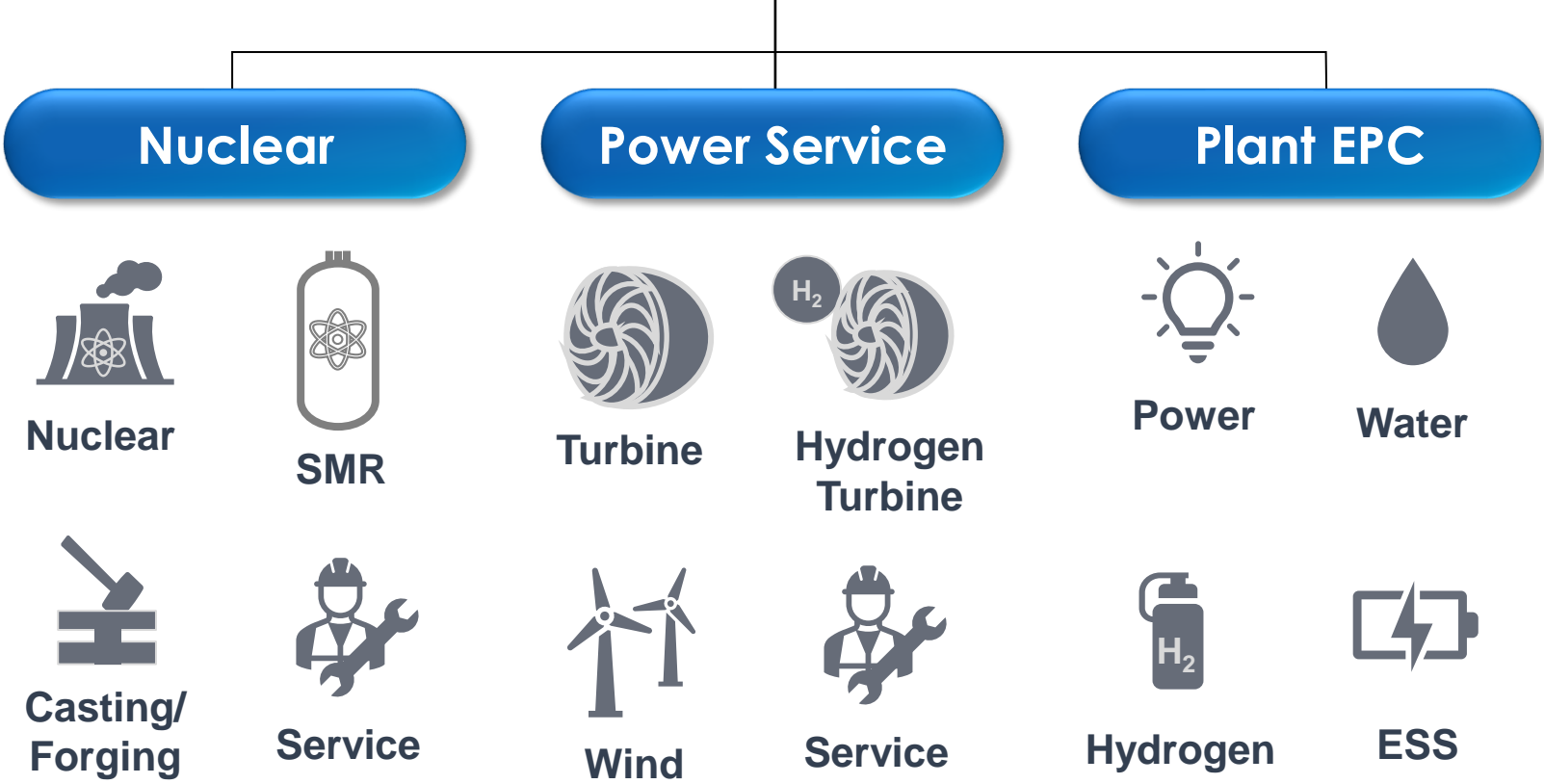
Manufacturing Complex (Changwon HQ)

DOOSAN Enerbility

128+
Years

62+
Years

330+
Global Projects



STRATEGY FOR ACCELERATING CARBON-NEUTRAL

4 Key Growth Drivers(Carbon-Free Energy Solutions)

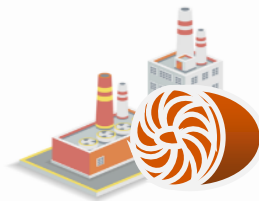
Nuclear



**Global No.1
Manufacturer**

**SMR (Small Modular
Reactor) Foundry**

Gas Turbine



**High Efficiency
Gas Turbine**

**Hydrogen
Turbine**

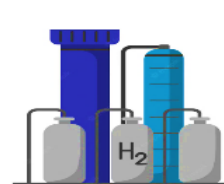
Renewable



**Off-shore
Wind Turbine**

**Renewable
Energy
Development**

Hydrogen



**Clean Hydrogen
Production**

**Hydrogen
Fuel Cell¹**

Materials/ Manufacturing

Circular Economy



**Waste Resource
Recycling
(Battery, etc.)**

AM² (3D Printing)

**Digitalized Advanced
Manufacturing**

Digital

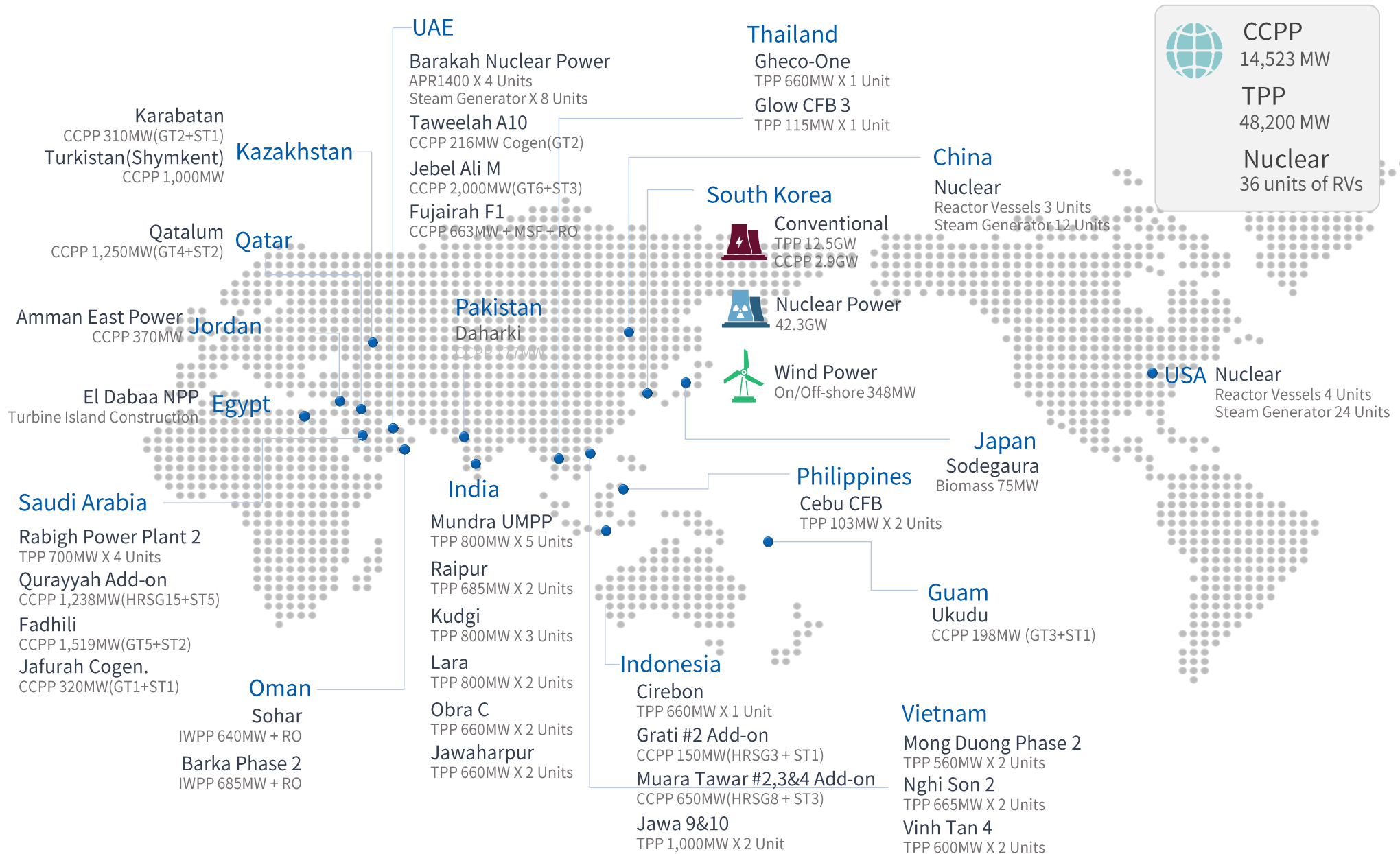


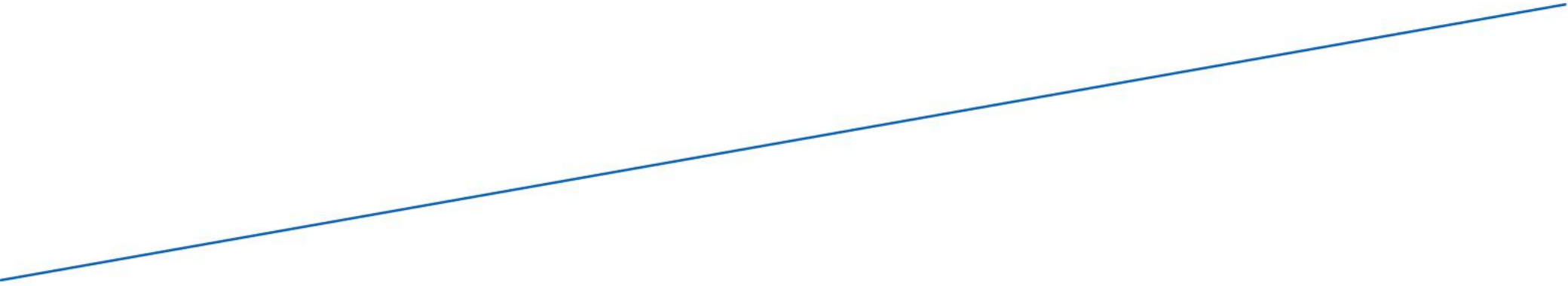
**Digital Twin, Optimization, Prediction/Diagnostics Solutions
based on AI & Data Science**

1. By Doosan Fuel Cell (a subsidiary company of Doosan Enerbility) and HyAxiom (an affiliate company in the US)

2. Additive Manufacturing

[Back-Up] Global Experience in Power Business





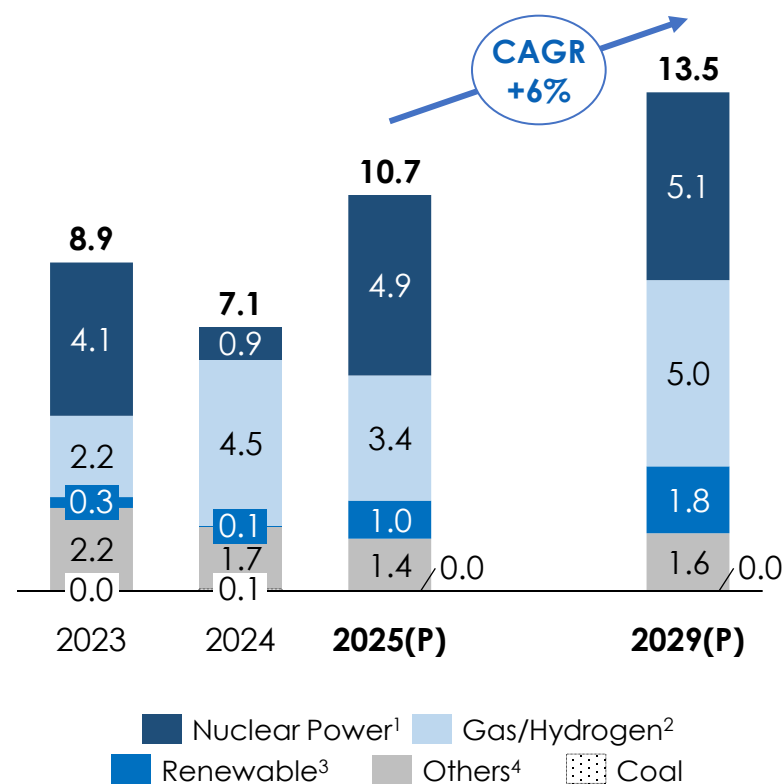
2. 2025 & Mid-term Guidance

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 mid-to-long term hydrogen combustion
- Order expansion on high-margin long-term services linked with Doosan's gas turbines / hydrogen turbines

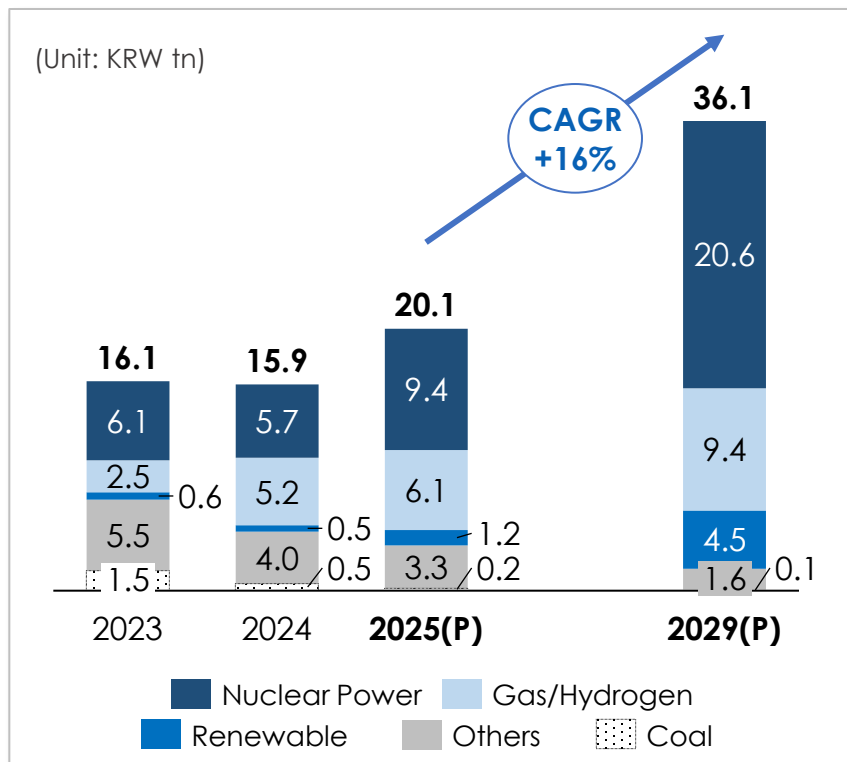
“Mid-term profitability improvement by focusing on high-margin biz. centered on nuclear / gas”

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

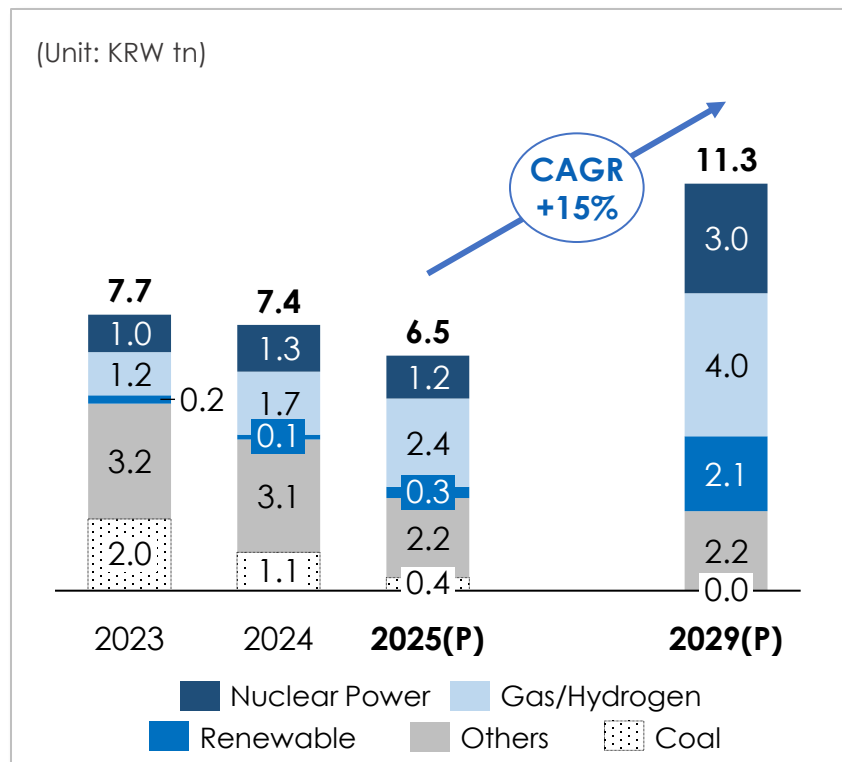
Backlog expected to grow to KRW36tn in 2029, as order intake continues to increase, resulting in mid-term revenue growth. Mid-term profitability improvement expected to be driven by improved backlog mix with the focus on higher-margin equipment

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



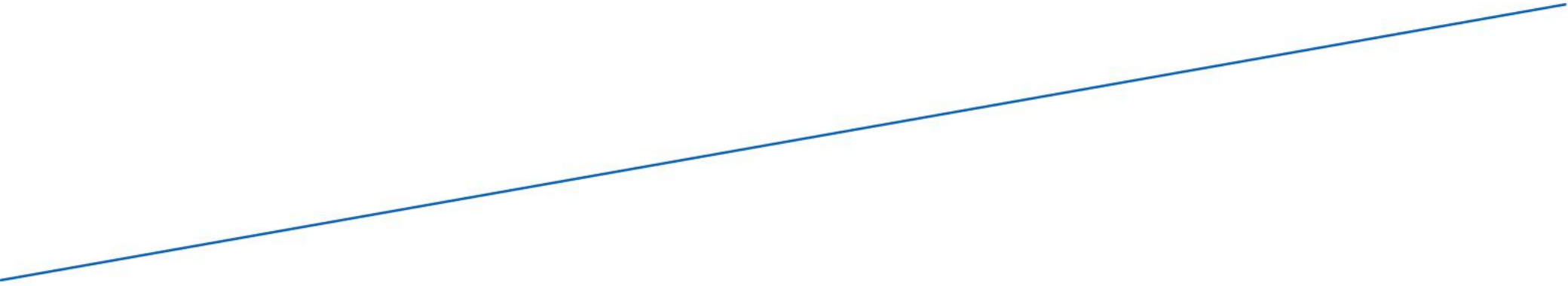
- Revenue from Shin-hanul Nuclear #3, #4, and Czech Nuclear to be in full swing
 - Nuclear revenue to increase gradually due to nature of long-delivery projects
- Increase in gas turbine equipment and combined cycle EPC sales, whereas sales from large coal EPC to phase out

2025 & Mid-term Guidance

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

	2024 Results	2025 Guidance		2029 Guidance
Orders	KRW7.1tn	KRW10.7tn	CAGR +6%	KRW13.5tn
Sales	KRW7.4tn	KRW6.5tn	CAGR +15%	KRW11.3tn
EBIT	KRW244bn	KRW373bn	CAGR +28%	KRW1,008bn
(%)	3.3%	5.8%	+3.1%p	8.9%

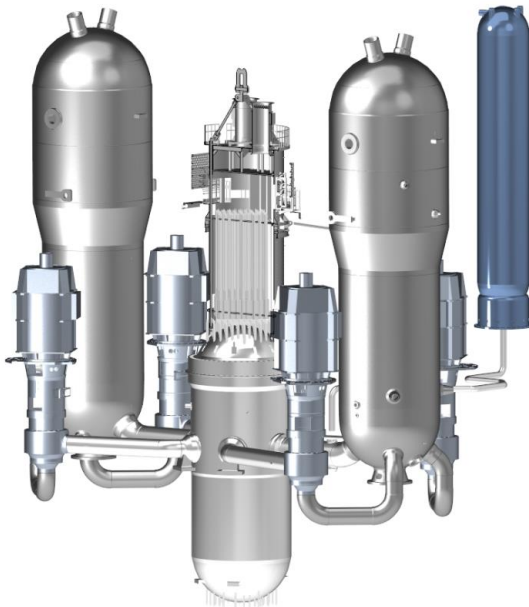


3. Nuclear business

Major Product and Service in Nuclear Business

Nuclear Steam Supply System

- Reactor Vessel and Internals
- Steam Generator
- Reactor Coolant Pump
- Control Element Drive Mechanism
- Pressurizer
- Integrated Head Assembly
- Fuel Handling System



Turbine & Generator System

- Turbine
- Generator
- Moisture Separator & Reheater,



I&C

- NPP I&C total Package
 - Safety / Non-Safety System
 - Cable Assembly, etc.
- Upgrade of I&C in operating NPPs
 - I&C Digital Upgrade
 - Control Rod Control System



Balance of Plant

- Containment Post-tensioning Sys.
- Containment Liner Plates
- Stainless Steel Liner Plates
- Condenser and Heat Exchangers
- Pressure Vessels & Tanks
- Gas Stripper, Boric Acid Concentrator

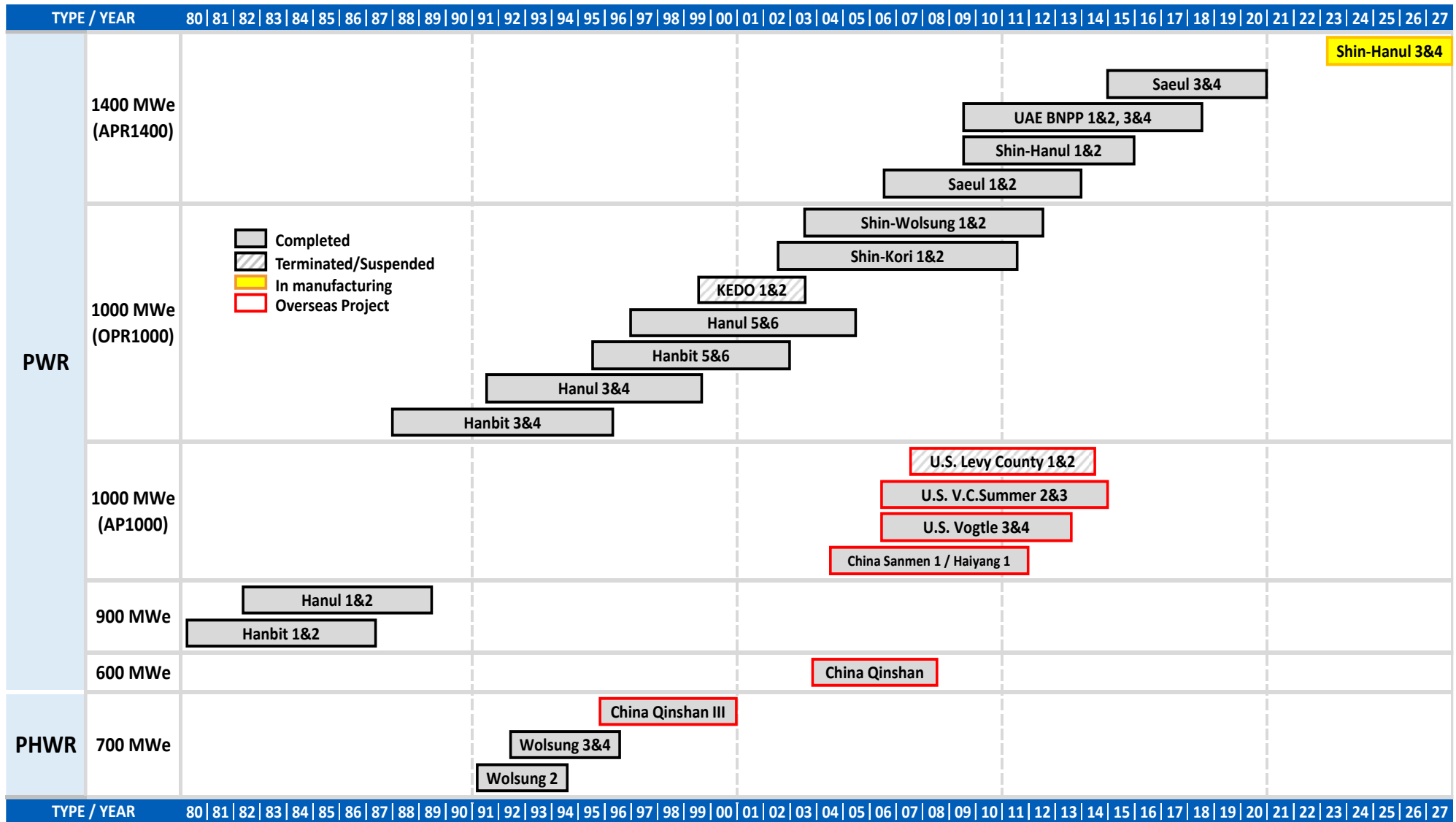


Nuclear Service

- Replacement Service
 - RSG, RRVCH, RPZR
- Repair & NDE Service
 - RVCH, SG, PZR
- Maintenance
 - RCP Internal & Refueling System
- Upgrade & Modification
 - FHS, IHA, High Density Fuel Rack
- Technical Advisory Service

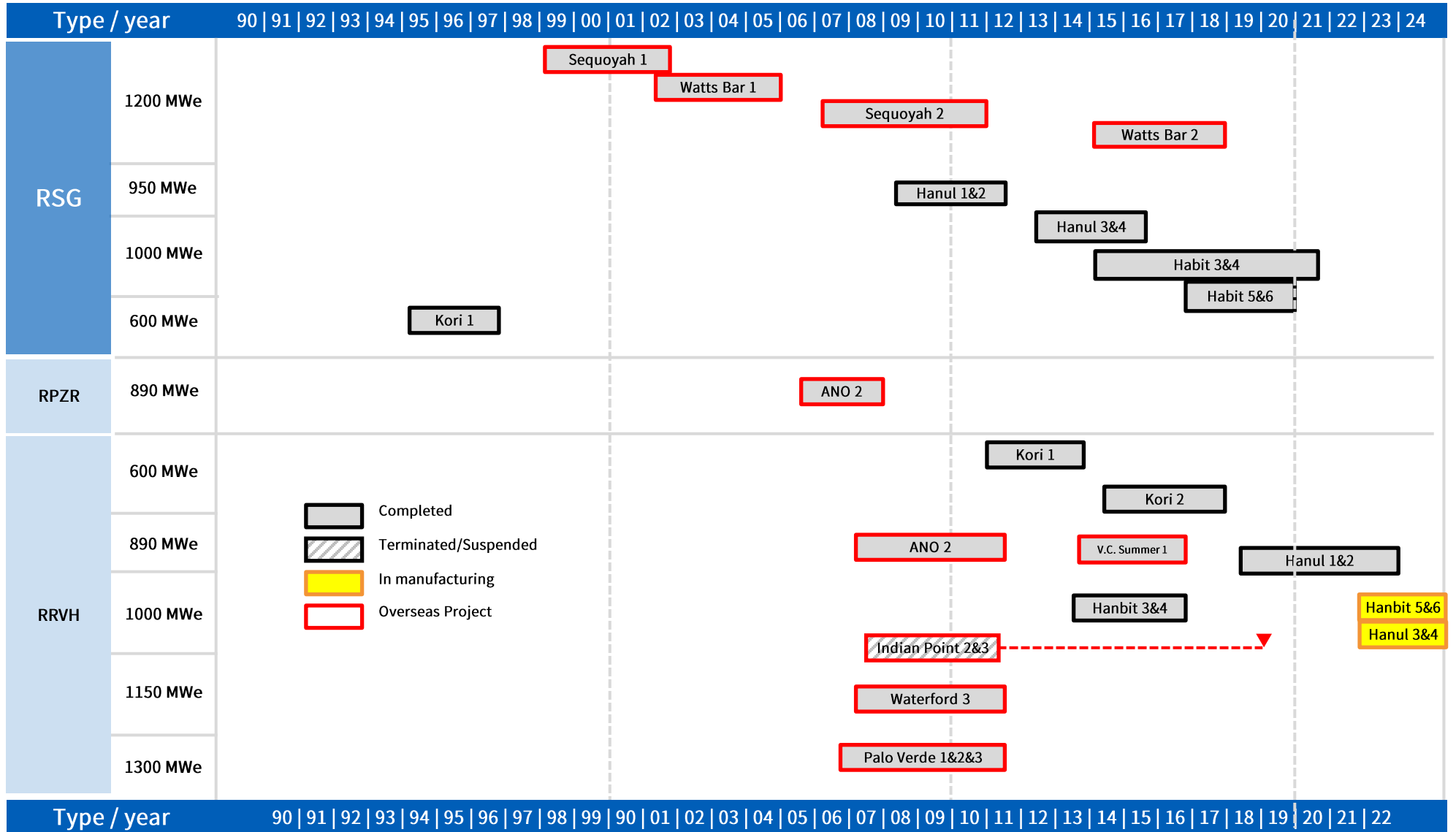
[Back-up] Nuclear Experiences – New Builds

New Builds



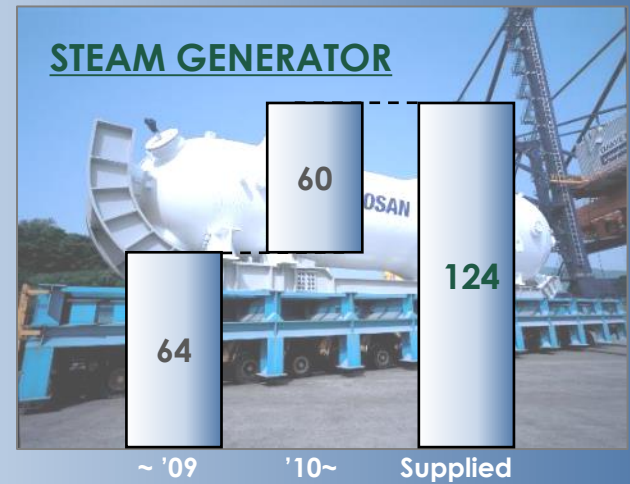
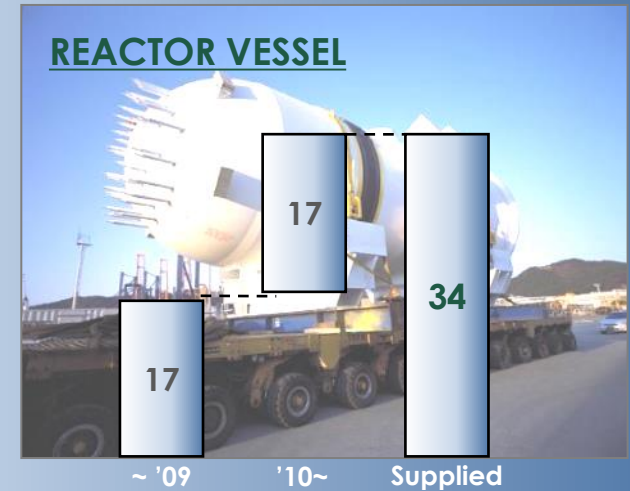
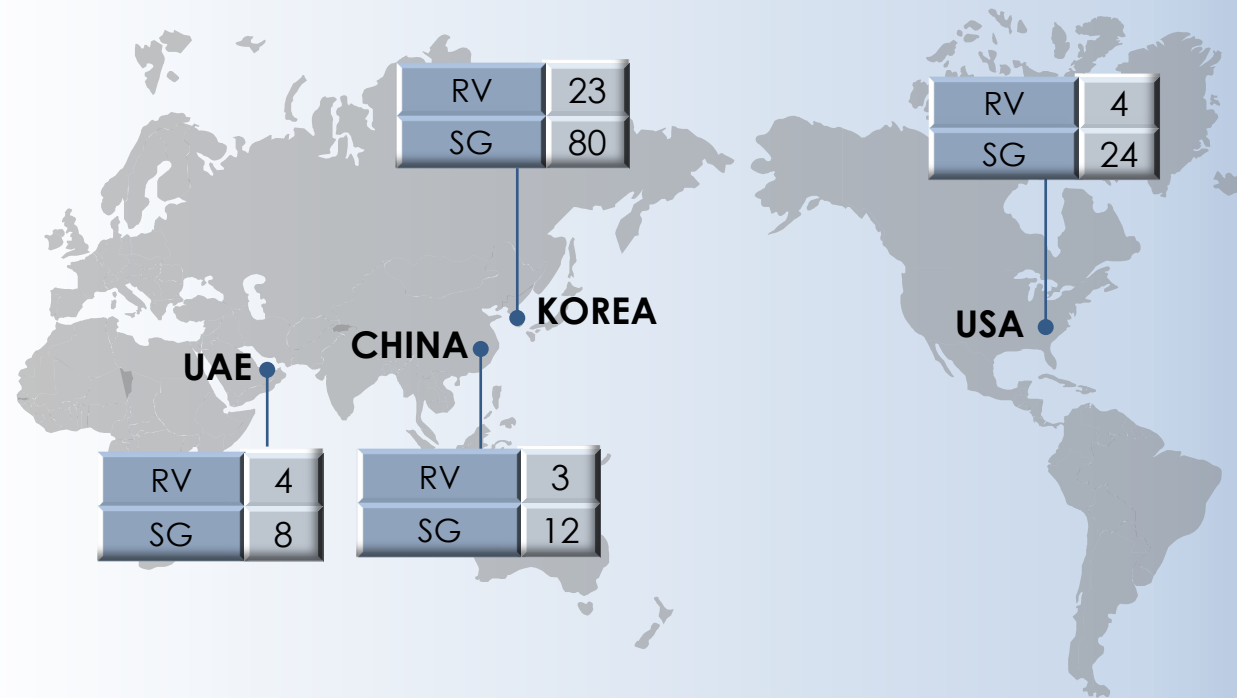
[Back-up] Nuclear Experiences - Replacement

Replacement



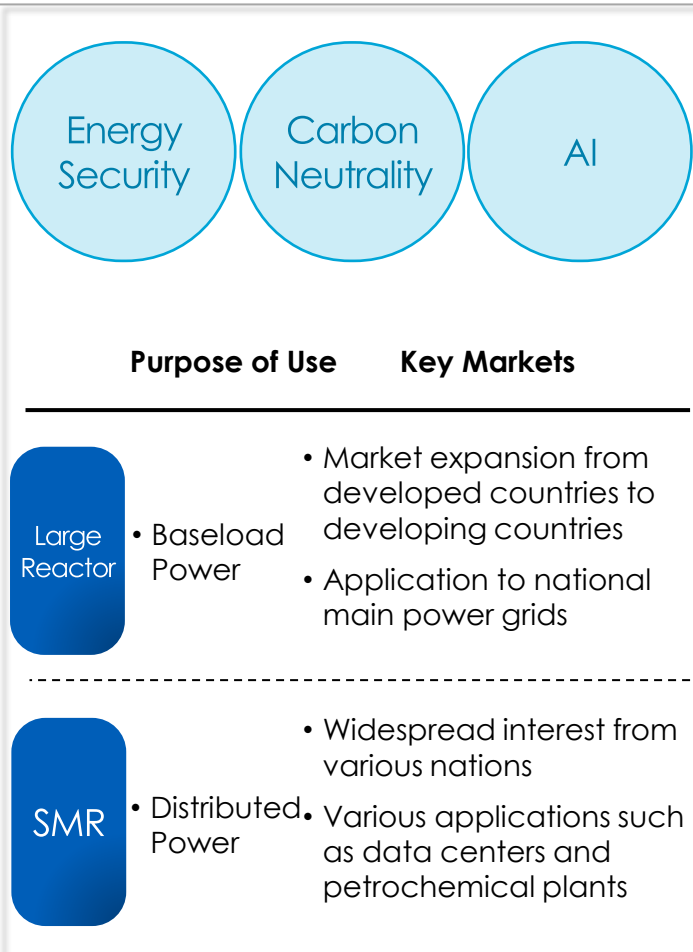
34 RVs & 124 SGs have been manufactured and supplied by Doosan globally.

Supplied



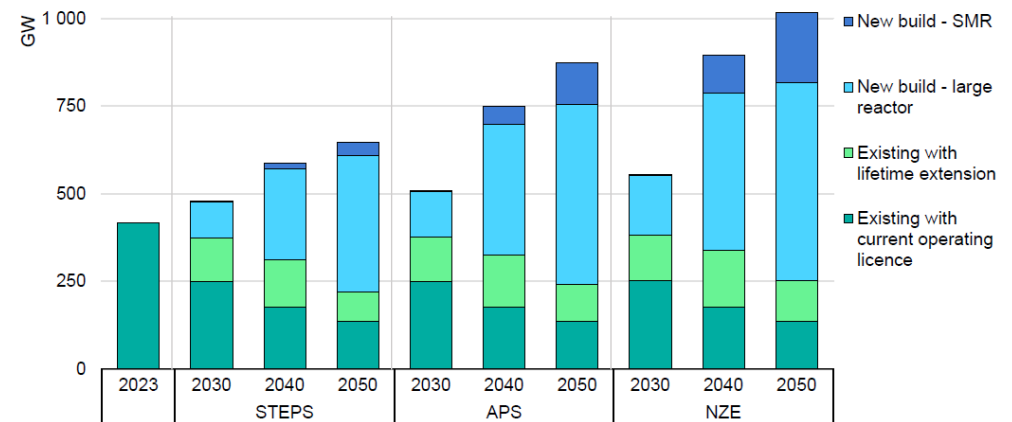
* Including Steam Generators for Replacement

Nuclear Energy Key Trends & Characteristics



Forecast for Continuous Increase in Nuclear Power Generation Capacity

- The capacity of nuclear energy is expected to increase by approximately 2.5 times by 2050 compared to 2023 driven by the global efforts to achieve carbon neutrality.
- The expansion of new large reactor builds and the newly formed SMR (Small Modular Reactor) market is anticipated, coupled with the extension of the lifespan of existing nuclear power plants.



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*>

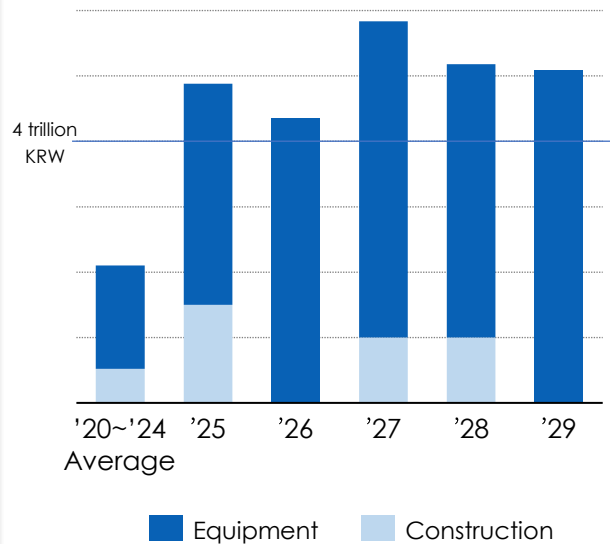
*The Path to a New Era for Nuclear Energy, IEA, 2025

Doosan's Nuclear Energy Business Outlook and Plan

Nuclear Energy Business Outlook

"Starting from 2025, aiming to achieve annual orders exceeding 4 trillion KRW in the nuclear energy business"

Nuclear Energy Business Order Plan('25~'29)



Doosan's Nuclear Energy Business Plan

Large Reactor

- Team Korea has won the Czech nuclear power plant order and is also pursuing subsequent projects
- Participating in Westinghouse's global nuclear projects based on Korea-U.S. nuclear cooperation
- Participating in the large-scale facility improvement market for the continued operation of operating nuclear power plants

SMR

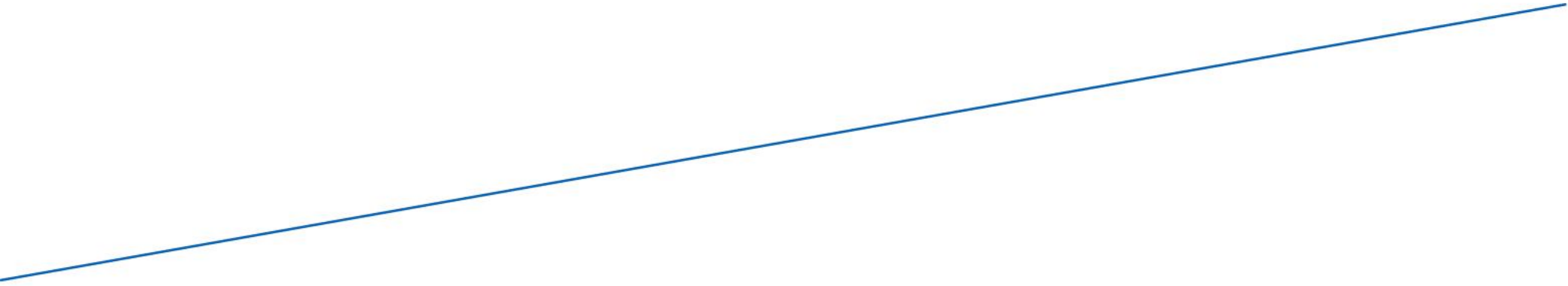
- Advancing as a Global SMR Foundry
 - Securing supply rights for initial projects and achieving early commercialization
- Securing World-Class SMR Manufacturing Competitiveness
 - Establishing dedicated SMR plants and investing in innovative manufacturing technologies
 - Building SMR supply chain with global competitiveness



[Signing of an MOU for Korea-U.S. Nuclear Cooperation]

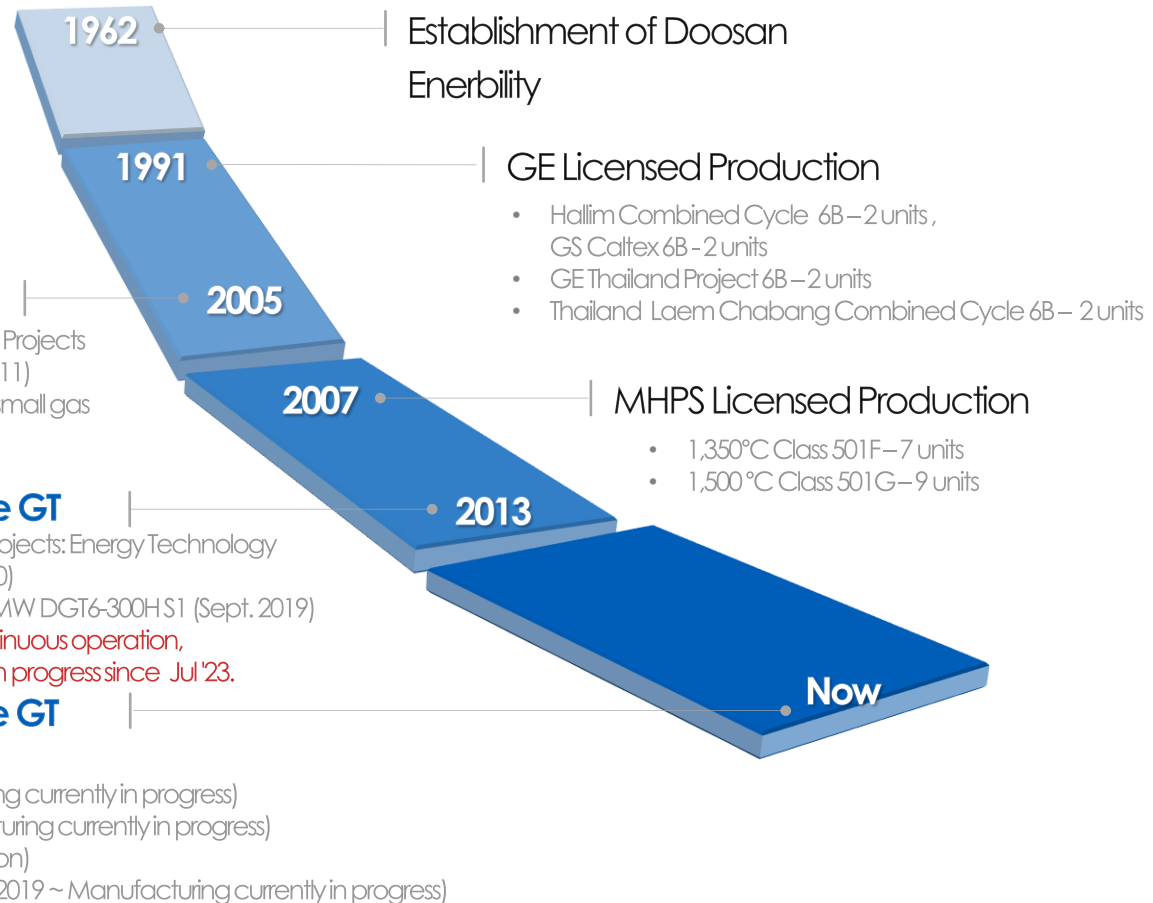


[DOOSAN SMR Tube Bending Room]



4. Gas Turbine Business

Doosan Enerbility has completed the development of a 1,650°C H-class large gas turbine.



Doosan's Gas Turbine Footprint

Gas turbine business is in full swing, and hydrogen turbines are expected to be in commercial operation by 2027, leading the hydrogen market.

2013

2021

2023

2027

Developed the world's
5th High - Efficiency
Large Gas Turbine

Demonstration of S1 Gas Turbine

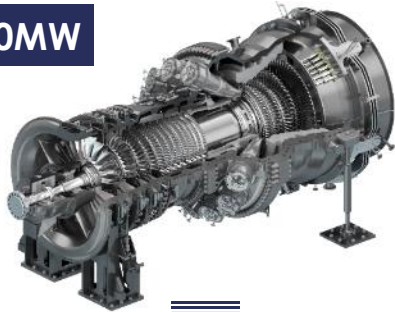
Manufacturing and Supply of S2

Development and Demonstration of
Carbon-Free Power Generation Technology with Hydrogen Turbine



DGT6-300H.S1

270MW



Gimpo CHP Plant

Plant capacity 500MW

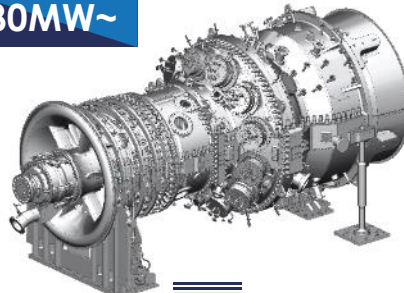


Commercial Operation
began in July 2023"



H₂ DGT6-300H.S2

380MW~



Shin Boryeong CCPP Plant

Plant capacity 550MW



5 projects won starting with
Shin Boryeong contract
signing in 2023"



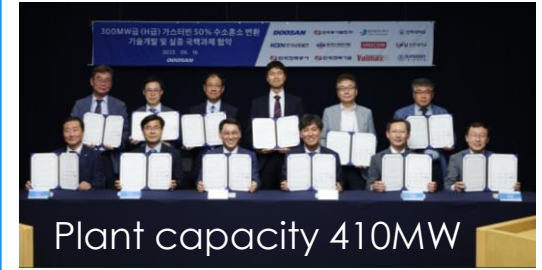
H₂ DGT6-300H.S1(Hydrogen)

270MW



Ulsan Hydrogen CCPP Plant

Plant capacity 410MW



National projects in progress
targeting supply in '27

Doosan Turbomachinery Services



GT / ST Component Repair



- Robotically Applied Coatings
- W501F 24/32K Packages
- W501F Exhaust Solutions
- Steam Turbine Overhauls

GT / ST Rotor Repair



- Full FClass Capabilities
- Balancing
- Un/Restack, De/Reblade
- Specialized Fixtures
- Antifouling/rock Coatings

Heavy Mechanical



- Dimensions/ Weld repairs
- Rounding & Jacking
- Specialized Fixtures
- Heavy Duty Lifting Beams & Rigging

New Parts, OnSite Service



- New rotor disc for 7EA
- New rotor disc for 7FA²
- Field Service
 - Onsite repair
 - Inspection & evaluation

Doosan Turbomachinery Services

- HQ La Porte TX
- Over 150yrs of combined experience in management team
- ~120,000sqft Repair and Overhaul Facility
- ISO9001:2015 & ISO45001:2018 Certified
- Thousands of repairs performed and in operation
- Capable of servicing stationary and rotating elements of gas and steam turbines
- Rotor/Handling Crane Capacity 100 tons
- Rotor Low Speed Balancing Capabilities 180,000lbs
- Full Coating Systems and Facilities
- State of the Art Materials Lab and Facilities



Global Gas Power Generation Market Outlook

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”

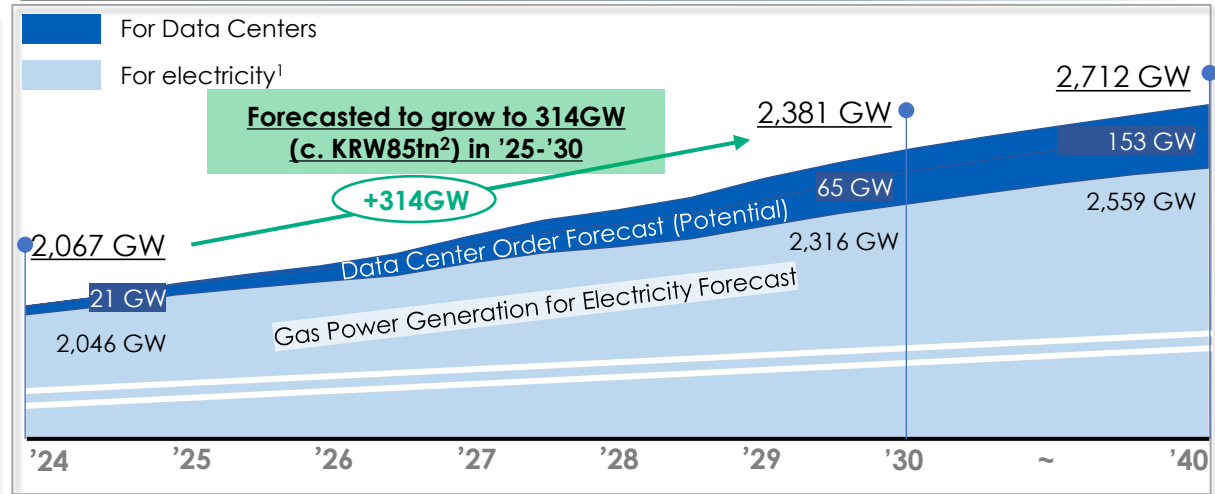
- The rapid expansion of datacenters is significantly increasing the power demand (c. 65GW by 2030), with gas power generation expected to support this need
 - Gas power will remain a primary electricity source by the commercialization of SMRs in '30

“Successful Entry into the GT Market”

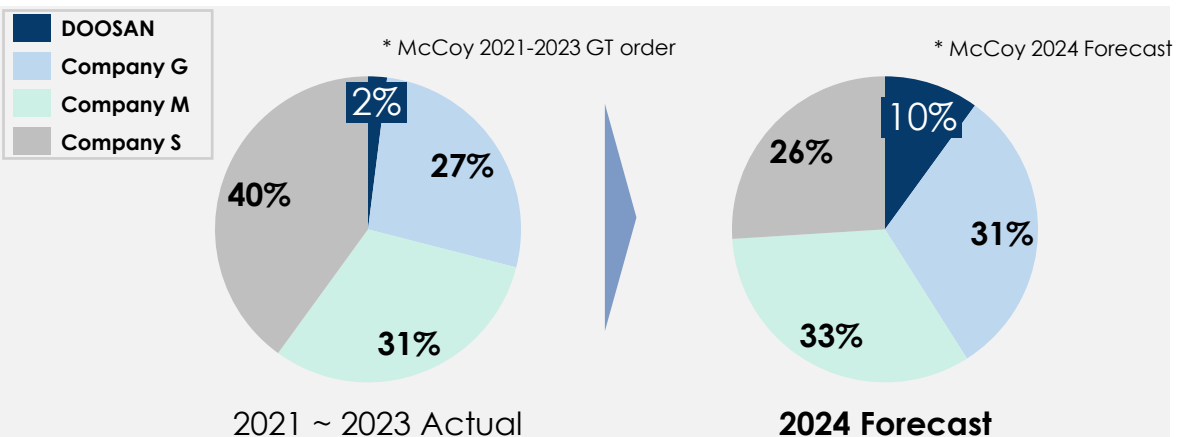
- Doosan has successfully entered the H-class gas turbine market and is actively expanding the business
 - Captured M/S of 10% (67% domestic) with the sale of H-class gas turbine in 2024, following the completion of demonstration in 2023

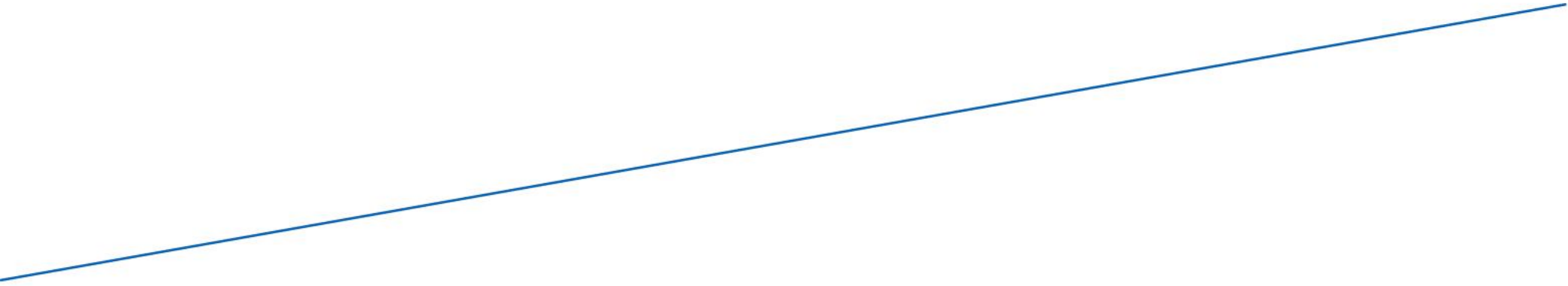
- S&P Global Commodity Insights Gas power generation capacity (installed, cum.)
- Applied GT World 2024 H-scale GT ASP of 193\$/kW

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



H-class Gas Turbine Market Share (60Hz)

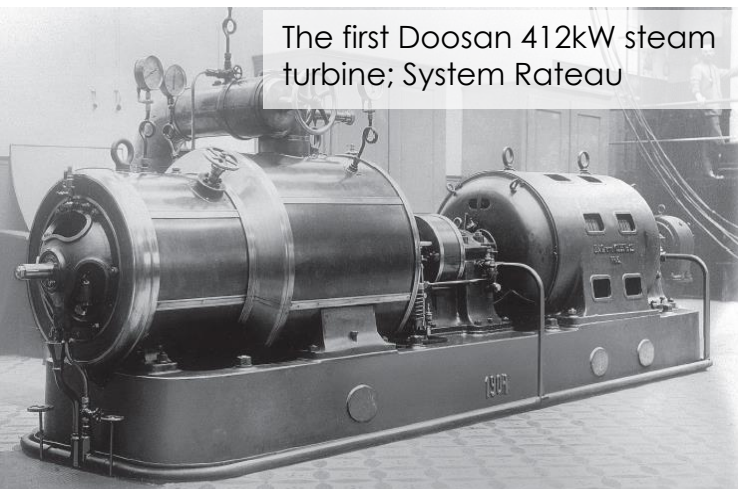




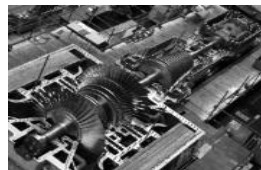
5. Steam Turbine Business

Doosan Steam Turbine Footprint

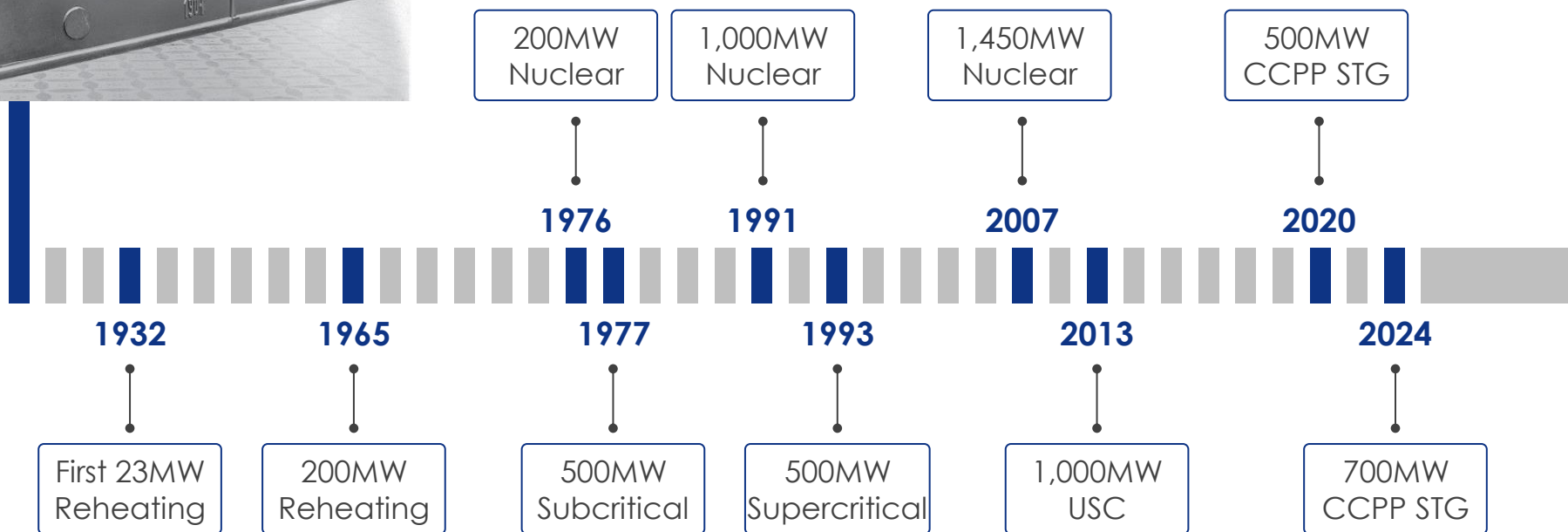
Reliable technology supplying over 130GW worldwide



The first Doosan 412kW steam turbine; System Rateau



1904



Focusing on Asia, MENA and Europe

EUR Recent Order-intake

- Zagreb (CRO / 37MW x 1)
- Kipa (TUR / 51MW x 1)
- Wolfsburg (GER / 46MW x 2)
- Aberdeen (UK / 17MW x 1)
- Newhurst WtE (UK / 44MW x 1)
- Bolu Biomass (TUR / 35MW x 1)
- Lostock (UK / 90MW x 1)
- Eti Maden (TUR / 15MW x 1)
- Olztyn (POL / 12MW x 1)
- Kemi (FIN / 270MW x 1)
- Bandirma (TUR / 36MW x 1)
- Protos (UK / 51MW x 1)
- Slough (UK / 60MW x 1)
- Pierrefonds (FRA / 19MW x 1)
- ABR Reunion (FRA / 32MW x 2)
- Dombalse (FRA / 19MW x 1)

MENA Recent Order-intake

- Fujairah III #1 (UAE / 544MW x 1)
- Fujairah III #2 (UAE / 270MW x 1)
- Dubai WtE (UAE / 200MW x 1)
- Sorek II (ISR / 12MW x 4)
- Tanajib (KSA / 133MW x 2)
- Taiba (KSA / 670MW x 1)
- Qassim (KSA / 636MW x 1)
- Rumah / Nairyah (KSA / 700MW x 2)
- PP12 Durma (KSA / 670MW x 1)
- Ghazlan II Unit 1 (KSA / 658MW x 1)
- Ghazlan II Unit 2 (KSA / 543MW x 1)
- Hajar Unit 1 (KSA / 658MW x 1)
- Hajar Unit 2 (KSA / 543MW x 1)

Asia Recent Order-intake

- Kwinana (AUS / 45MW x 1)
- Sodegaura (JPN / 75MW x 1)
- Palu 3 (IDN / 64MW x 2)
- Quang Trach 1 (VNM / 700MW x 2)
- Daegu-Cheongju (ROK / 124MW x 2)
- Busan TBN Upgrade (ROK / 180MW x 2)
- Shin Sejong CCPP (ROK / 200MW x 1)
- Bucheon CCPP (ROK / 178MW x 1)
- Gimpo CCPP (ROK / 160MW x 1)
- Guam (GUM / 73MW x 1)
- Syrdarya II (UZB / 540MW x 1)
- Boryeong New CCPP (ROK / 189MW x 1)
- Andong CCPP (ROK / 182MW x 1)
- Goseong CCPP (ROK / 398MW x 1)
- Gongju CCPP (184MW x 1)
- Haman CCPP (ROK / 180MW x 1)
- Bundang CHP (ROK / 180MW x 1)
- Yeosu CCPP (ROK / 180MW x 1)

Supply records in aggregate
747 Units / More than 148GW

[Back-up] Specialty in Nuclear Steam Turbine

Supply records for both half-speed and full-speed nuclear steam turbine

