

# COSMO ENERGY GROUP

The 7th Consolidated  
Medium-Term Management Plan

# Oil & New

~ Next Stage ~

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\* Figures for FY2022 are contained the full-year forecast published on 9 February 2023 or the outlook.

# Agenda

Section

**1**

**Recap of The Sixth  
Medium-Term Management Plan**

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**The Seventh Consolidated Medium-Term  
Management Plan**

Under the slogan “Oil & New Everything About Oil – And Beyond,” we implemented initiatives based on four basic policies.

We set out to bolster our profitability and financial position to achieve sufficient net worth and a net debt-to-equity ratio of 1.0-1.5 times in order to withstand changes in the market environment at an early stage.

## Basic policies

- 1 **Secure profitability to enable reinvestment**
- 2 **Expand growth driver toward the future**
- 3 **Improve financial condition**
- 4 **Strengthen Group management foundation**

## Management goals

<b>Ordinary profit</b> <small>(excl. impact of inventory valuation)</small>	<b>≥¥ 120.0 bil.</b>
<b>Profit attributable to owners of parent</b>	<b>≥¥ 50.0 bil.</b>
<b>Free cashflow</b> <small>(FY2018-2022 five-year cumulative)</small>	<b>≥¥ 150.0 bil.</b>
<b>Net worth</b> <small>(Net worth ratio)</small>	<b>≥¥ 400.0 bil.</b> <small>(≥20%)</small>
<b>Net D/E ratio</b>	<b>1.0-1.5 times</b>
<b>ROE</b>	<b>≥ 10 %</b>

1

## Secure profitability to enable reinvestment

### Initiatives

Build a safe and stable operational framework  
(establish a supply shortage position)

Transform to bottomless refineries and increase profitable products by taking action ahead of IMO regulations

Strengthen Vehicle Life Business

Achieve synergy with Petrochemical Business

Steadily recover investment in Hail Oil Field

### Results

Started supplying oil to Kygnus Sekiyu K.K.  
Improved refinery operating ratio

87% (FY17\*)  
→91% (FY22\*)

\*Four-year average on Calendar Day basis

Established zero High-sulfur C fuel oil production system  
Increased production of Low-sulfur C fuel oil

Signed lease contracts for cumulative total of 100,000 vehicles  
5 mil. carlife app downloads

Commenced operation of propylene rectifying tower  
Started circulating raw materials and fuel between Petroleum and Petrochemical Business

Continued stable production at Hail Oil Field  
Cosmo group production volume  
38 kB/D (FY13-17 average)  
→45 kB/D (FY18-22 average)

2

## Expand growth driver toward the future

### Initiatives

Early development of offshore wind power  
(Expand Onshore wind power)

Strengthen Petrochemical Business  
and increase its product line

Explore new businesses to drive future growth  
in domestic and overseas market

### Results

Developed 150MW new onshore wind farm  
Commenced operation of Japan's first  
large-scale offshore wind farm  
Developing multiple offshore pipelines

Expanded semiconductor photoresist  
resin production capacity

Started cooperation toward SAF production  
Began exploring ways to collaborate with  
ADNOC or Masdar in area of decarbonization

## 3 Improve financial condition

### Initiatives

Increase net worth based on profit



### Results

#### Net worth

¥238.7 bil. (FY17)

→ **¥527.0 bil. (FY22)**

#### Net D/E ratio

2.30 times (FY17)

→ **1.05 times (FY22)**

## 4 Strengthen Group management foundation

### Initiatives

Implement sustainable management



### Results

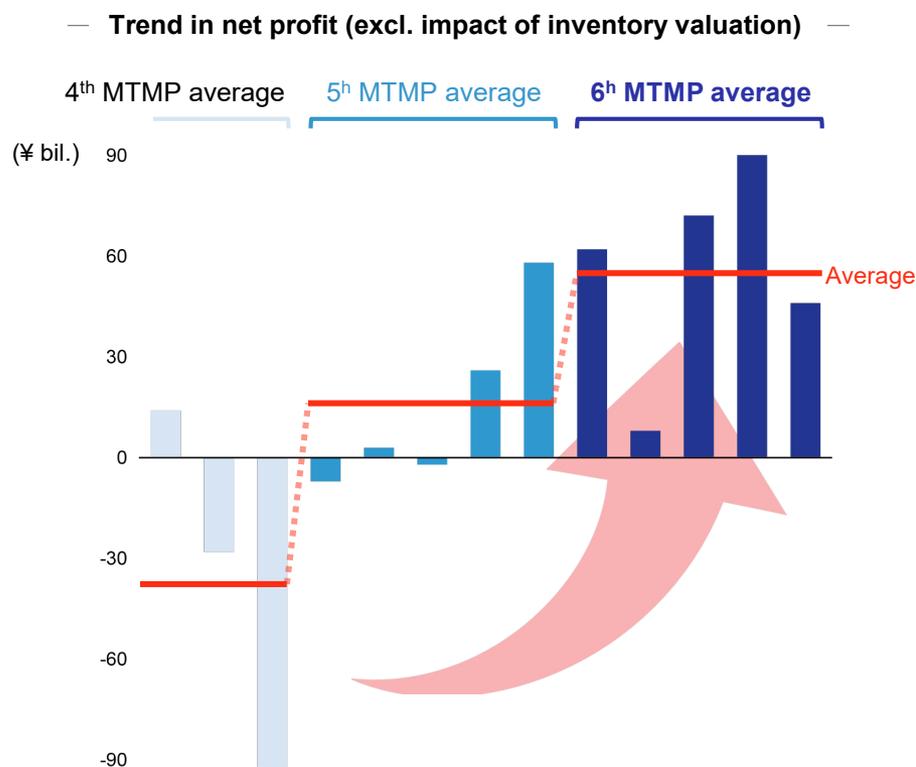
Established sustainability promotion framework

Issued 2050 Carbon Net Zero Declaration and disclosed roadmap

Expanded range of diversity (women's empowerment) initiatives; appointed female directors and increased proportion of women in managerial roles

Developed next-generation energy/ technology promotion framework

Significantly increased our profitability by steadily implementing initiatives  
 Achieved all management goals set out in The Sixth Med-Term Mgmt. Plan  
 The Seventh Consolidated Med-Term Mgmt. Plan will take us to the next stage



## Management goals

Ordinary profit (excl. impact of inventory valuation)	≥¥ 120.0 bil.
Profit attributable to owners of parent	≥¥ 50.0 bil.
Free cashflow (five-year cumulative)	≥¥ 150.0 bil.
Net worth (Net worth ratio)	≥¥ 400.0 bil. (≥20%)
Net D/E ratio	1.0-1.5 times
ROE	≥ 10 % (excl. impact of inventory valuation)

## Expected FY2022 results

Ordinary profit (excl. impact of inventory valuation)	¥ 140.0 bil.	○
Profit attributable to owners of parent	¥ 68.0 bil.	○
Free cashflow (five-year cumulative)	¥ 153.2 bil.*	○
Net worth (Net worth ratio)	¥ 527.0 bil. (26.2%)	○
Net D/E ratio	1.05 times	○
ROE	13.8 % (9.3%)	○

\* Excl. impact of subsidies to curb the impact of a surge in gasoline and other fuel prices (approx. -¥44.0 bil.), which is a transient factor.

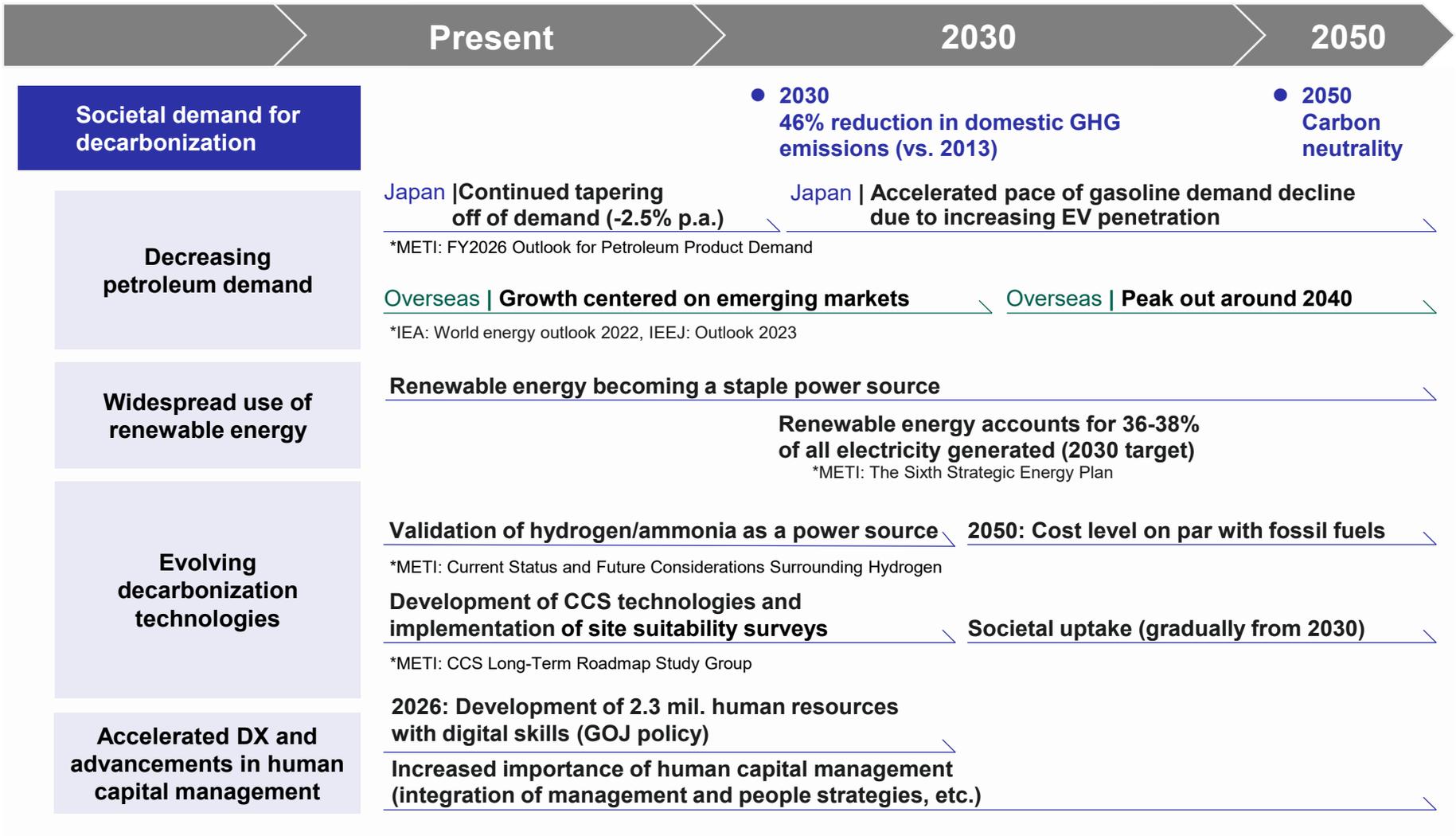
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**1** Recap of The Sixth  
Medium-Term Management Plan

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**2** **Vision 2030**

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**3** The Seventh Consolidated Medium-Term  
Management Plan

Efforts to achieve carbon neutrality by 2050 will progress and the world will enter an era of energy transformation.



# Vision 2030

To create energy that shapes the future,  
energy that sustains society, and new forms of value

## Green Energy



**Bolster green  
electricity supply chain**

Build a high value-added supply chain that encompasses power generation, supply-demand adjustment and sales

## Next-Generation Energy



**Expand next-  
generation energy**

Supply SAF and develop hydrogen and other energy businesses

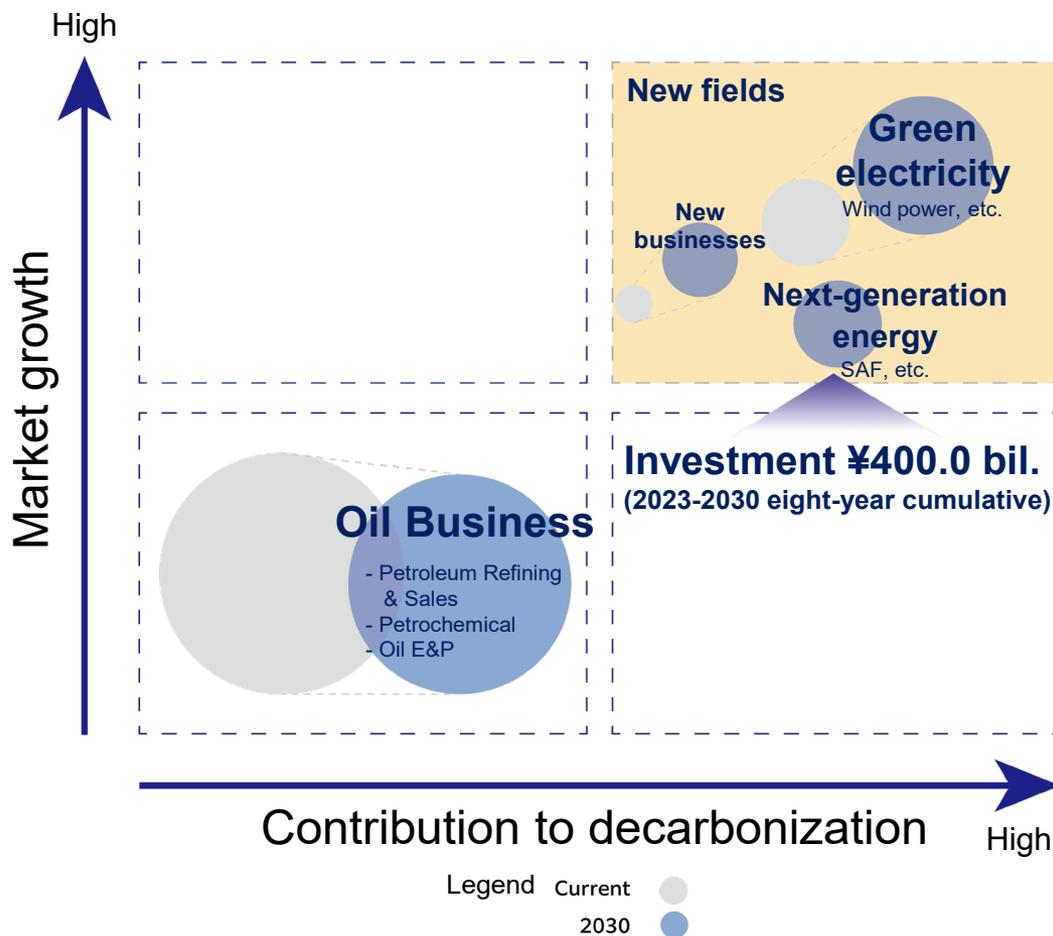
## Oil Business



**Strengthen competitiveness  
of Oil Business and pursue  
low carbonization**

Enhance competitiveness by digitizing refineries, etc. and shift to low-carbon operations through CCS/CCUS

## Business portfolio



### [Profitability]

Ordinary profit **¥200.0-250.0 bil.**

Profit attributable to owners of parent **¥90.0-120.0 bil.**

### [Investment]

**New fields** **¥400.0 bil.**  
(2023-2030 eight-year cumulative) [¥600.0 bil. strategic investment incl. New fields]

### [Capital efficiency]

ROE **≥12%**

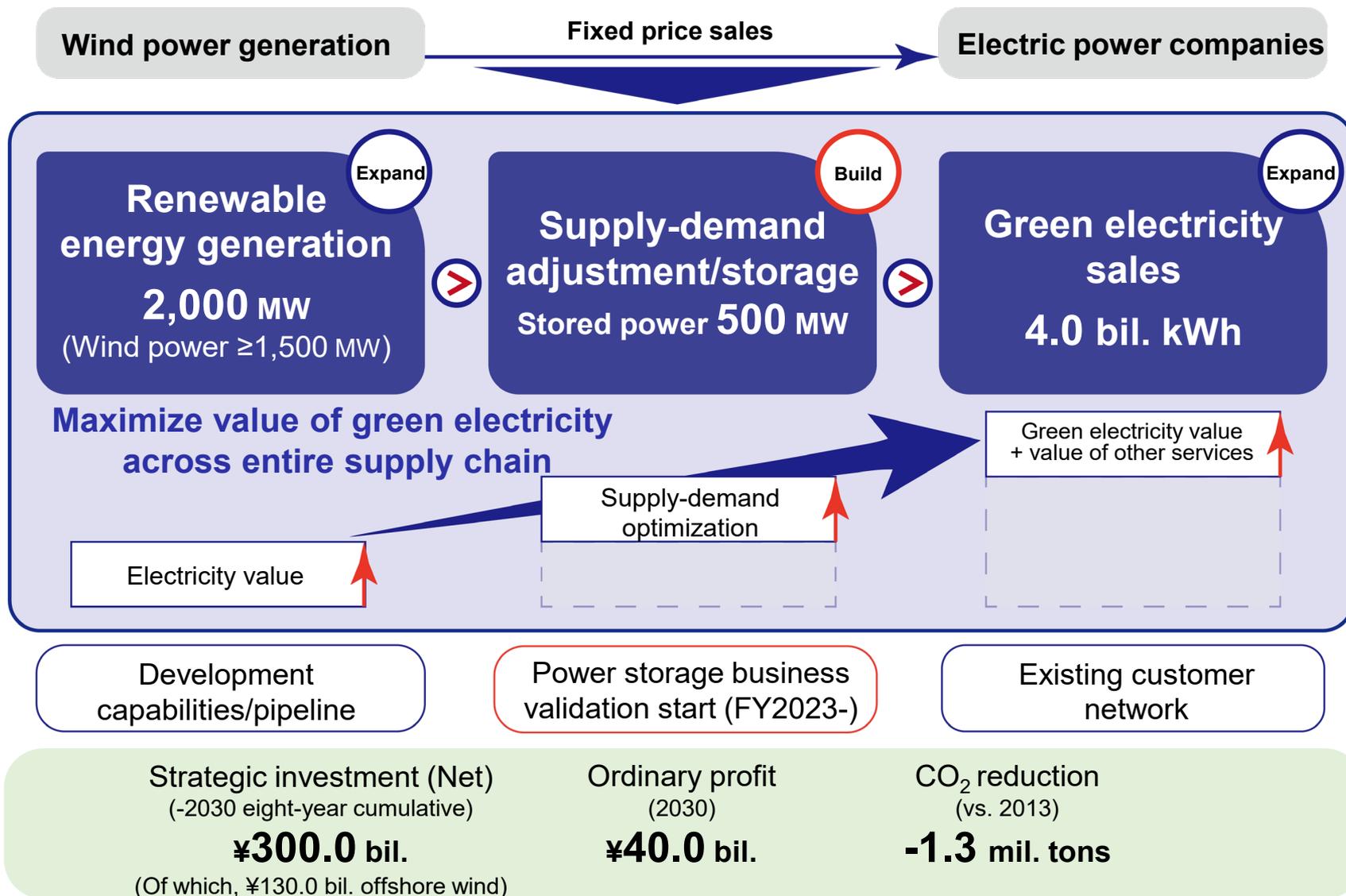
ROIC **≥8%**

### [Climate change countermeasures]

**CO<sub>2</sub> reduction** **- 30%**  
(-2 mil. tons vs. 2013)



## Transformation of the current business model





### Development capabilities/pipeline

**Onshore wind power: current capacity**  
**300MW**

**Onshore wind power: planned capacity**  
**600MW**   
(of which 400 MW is under construction/development)

**Offshore wind power: planned capacity**  
**600MW**

**COSMO**  
Cosmo Eco Power Co., Ltd.  
**Integrated development/  
O&M framework**

### Power storage business validation start (FY2023-)

Market  
Consumers

Installation of storage batteries at power plants/grid-scale storage systems

### Existing customer network

**コスモでんき**  
**グリーン**  
Cosmo Denki Green  
Introduced at over **1,000 sites**

**再エネ×EV**  
**コスモ・ゼロカーボ**  
**ソリューション**  
Cosmo Zero Carbon Solution  
**RExEV solution**

**5 mil. app downloads**

**60,000 Eco Card holders**

**コスモMyカーリース**  
Cosmo My Car Lease  
**Lease contracts signed for cum. total of 100,000 vehicles**

## Mass production of Japan's first locally-made SAF



Established LLC



SAF production



Waste cooking oil take-back



Equipment manufacturing



COSMO MITSUI & CO.

SAF production



ATJ technology

**300,000** KL

First in Japan

**30,000** KL

2025

2030

Expand production scale

Produce SAF using Alcohol to JET (ATJ) technology

Produce SAF from waste cooking oil raw materials

## Development of hydrogen and other energy businesses

### Entry into hydrogen supply chain

- Considering partnering with Iwatani Corp.
- Operation of hydrogen station for trucks



Use of existing assets for entry into hydrogen supply chain

- Exploring new hydrogen production technologies (turquoise hydrogen)
- Joint development with Toda Kogyo Corp.

\*In addition, we will undertake R&D and proof-of-concept testing for waste plastic recycling as well as ammonia, synthetic and other fuels.

Strategic investment

(-2030 eight-year cumulative)

**¥100.0 bil.**

Ordinary profit (2030)

**¥10.0 bil.**

CO<sub>2</sub> reduction (vs. 2013)

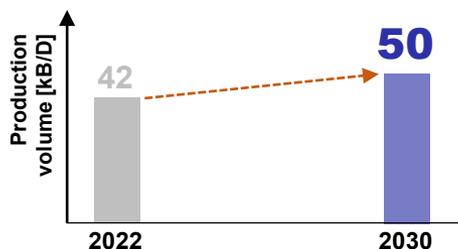
**-400,000 tons**



## Oil E&P

**Early production/  
recovery of crude oil**  
[Production volume 50kB/D]

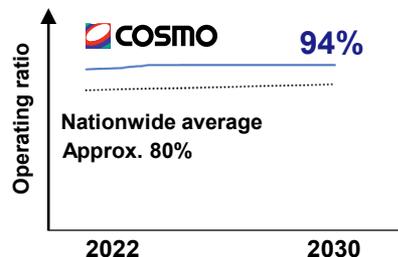
Start production in new Abu Dhabi exploration block (Offshore Block 4)



## Petroleum Sales & Refining

**Shift to high-  
efficiency refineries**  
[Operating ratio (CD) 94%]

Digitize refineries



\*COSMO operating ratio four-year average

\*Nationwide operating ratio 2018-2021 actual basis (four-year average)

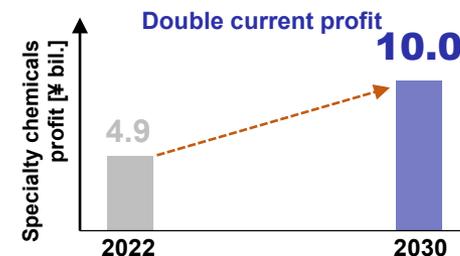


## Petrochemicals

**Expansion of  
specialty chemicals**  
[Profit ¥10.0 bil.]

\*New fields

Increase production of semiconductor photoresist resins



Competitiveness strengthening

Low carbonization

## Low carbonization of Oil Business

[CO<sub>2</sub> reduction: -300,000 tons + α]

- Promote conversion to low-carbon fuels in Petroleum Refining & Sales and Petrochemical businesses, and energy conservation
- Realize CCS/CCUS in partnership with Abu Dhabi National Oil Company

Strategic investment  
(-2030 eight-year cumulative)

**¥200.0 bil.**

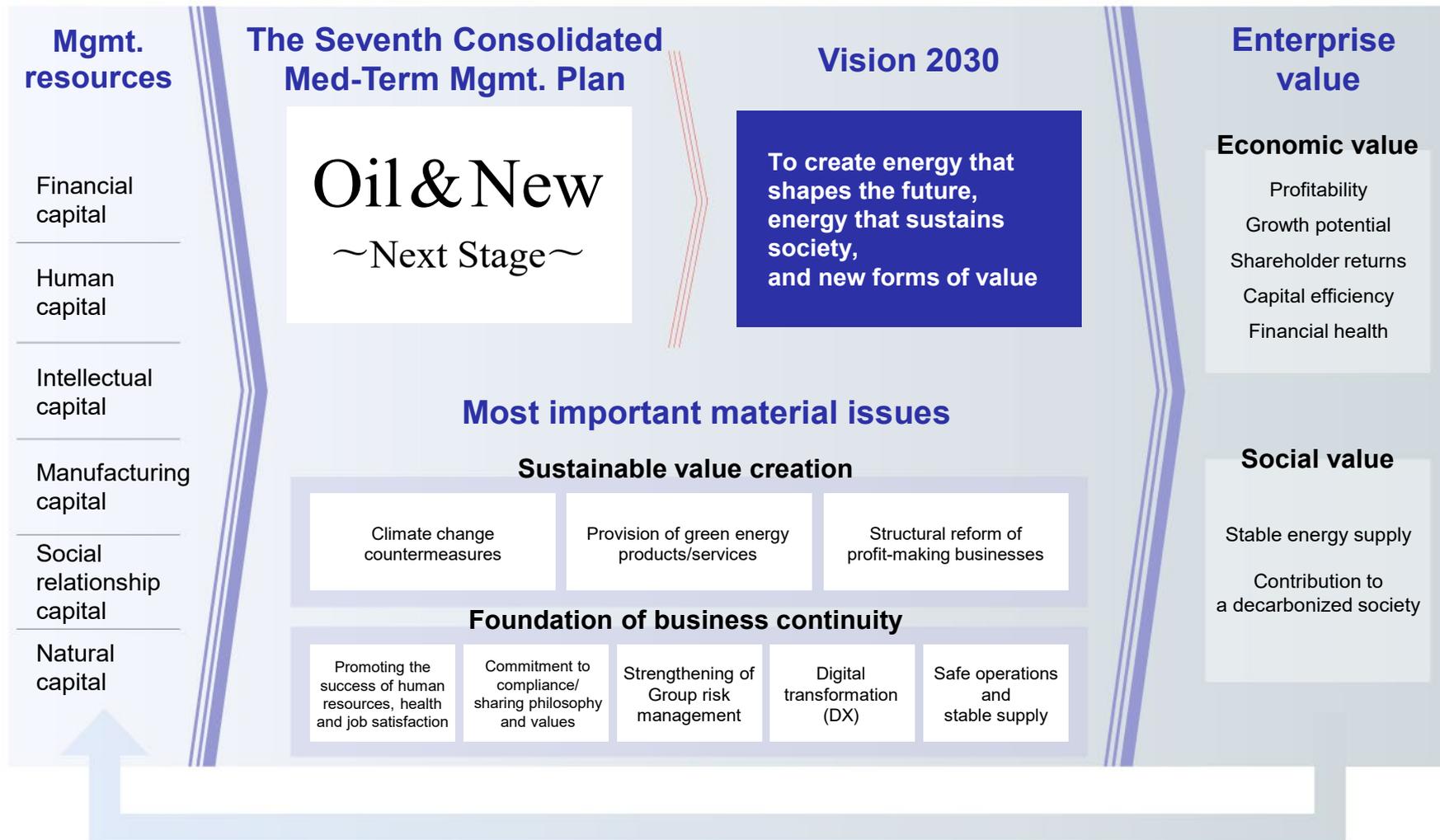
Ordinary profit  
(2030)

**¥150.0 bil.**

CO<sub>2</sub> reduction  
(vs. 2013)

**-300,000 tons + α**

The Cosmo Energy Group will enhance enterprise value while addressing the most important material issues, leveraging tangible and intangible management resources to realize The Seventh Medium-Term Management Plan and Vision 2030, which integrate financial and non-financial initiatives.



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Section 1  
**Recap of The Sixth  
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**The Seventh Consolidated Medium-Term  
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**Basic Policies and Strategies**

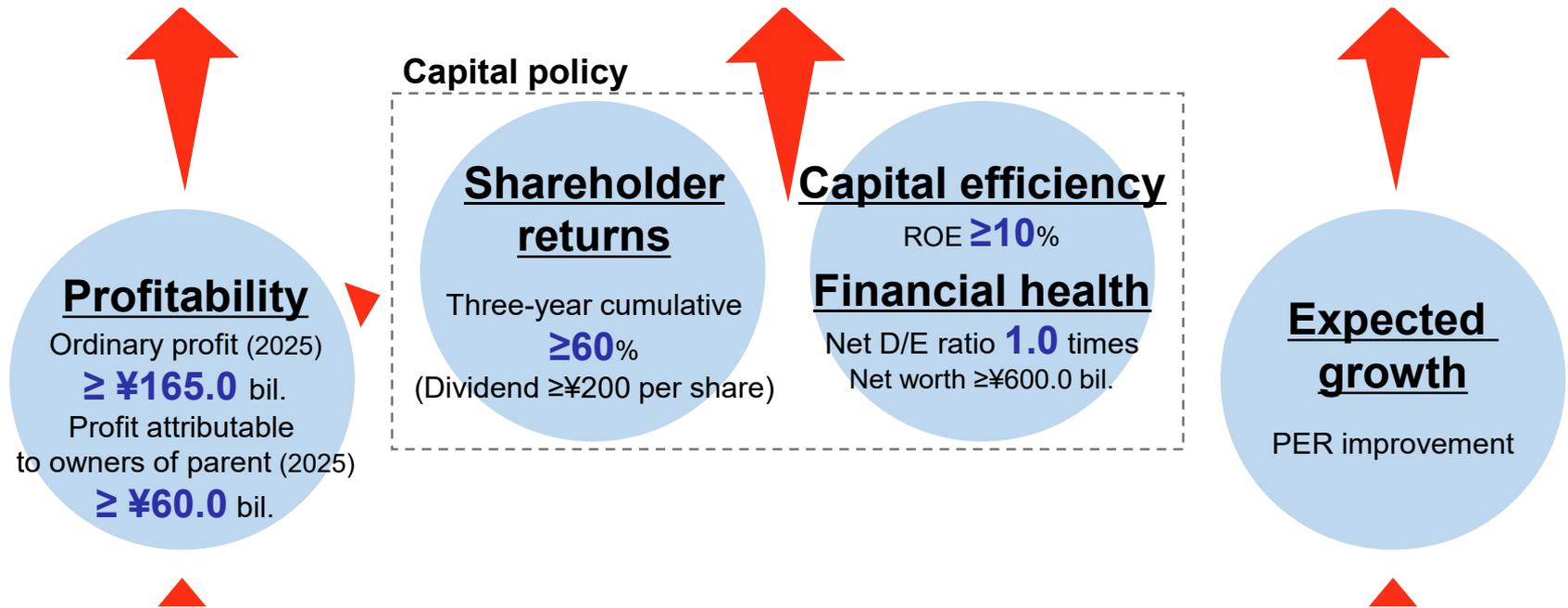
Capital Policy

Management Goals

Having achieved a certain degree of success in improving our financial position under The Sixth Med-Term Mgmt. Plan, The Seventh Med-Term Mgmt. Plan will take us to next stage. We aim to continuously enhance enterprise value as we look to fulfill Vision 2030.



Enterprise value enhancement [PBR improvement]



# Oil & New ~Next Stage~

## Secure profitability

Ensure **high uptime and high-efficiency operations** at refineries

Increase sophistication of fuel oil sales through **marketing science**

**Maximize production volume** of Oil E&P Business

## Expand New fields to drive growth

Establish **green electricity supply chain** profit foundation

**Mass produce** Japan's first **locally-made SAF**

**Expand Mobility Business** in anticipation of shift to EVs

Increase specialty chemicals profit

## Realize three-pronged capital policy

**Proactively return profits to shareholders**

**Secure sound financial health** from multiple perspectives

Achieve stable **capital efficiency**

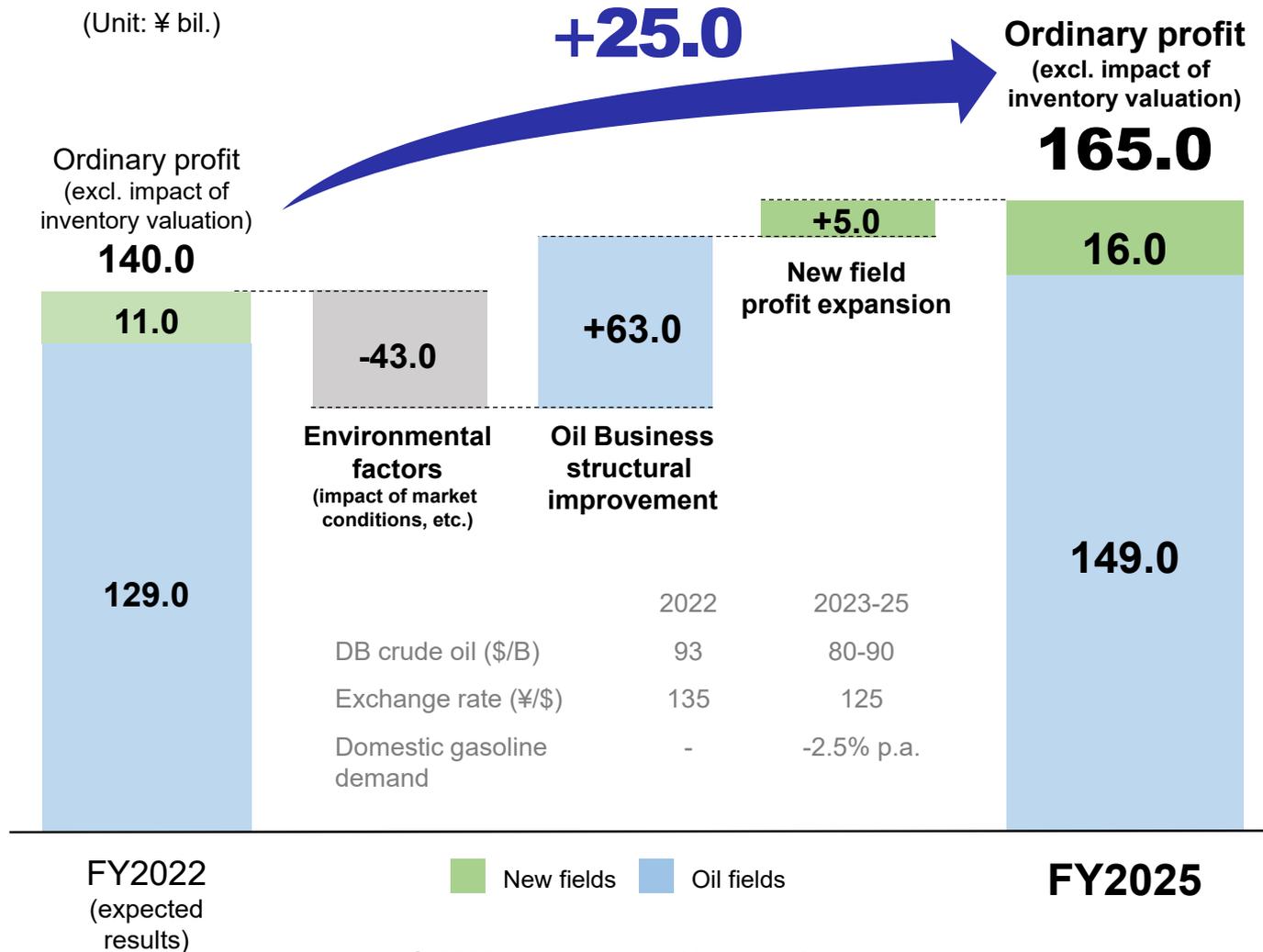
## Transform management foundation

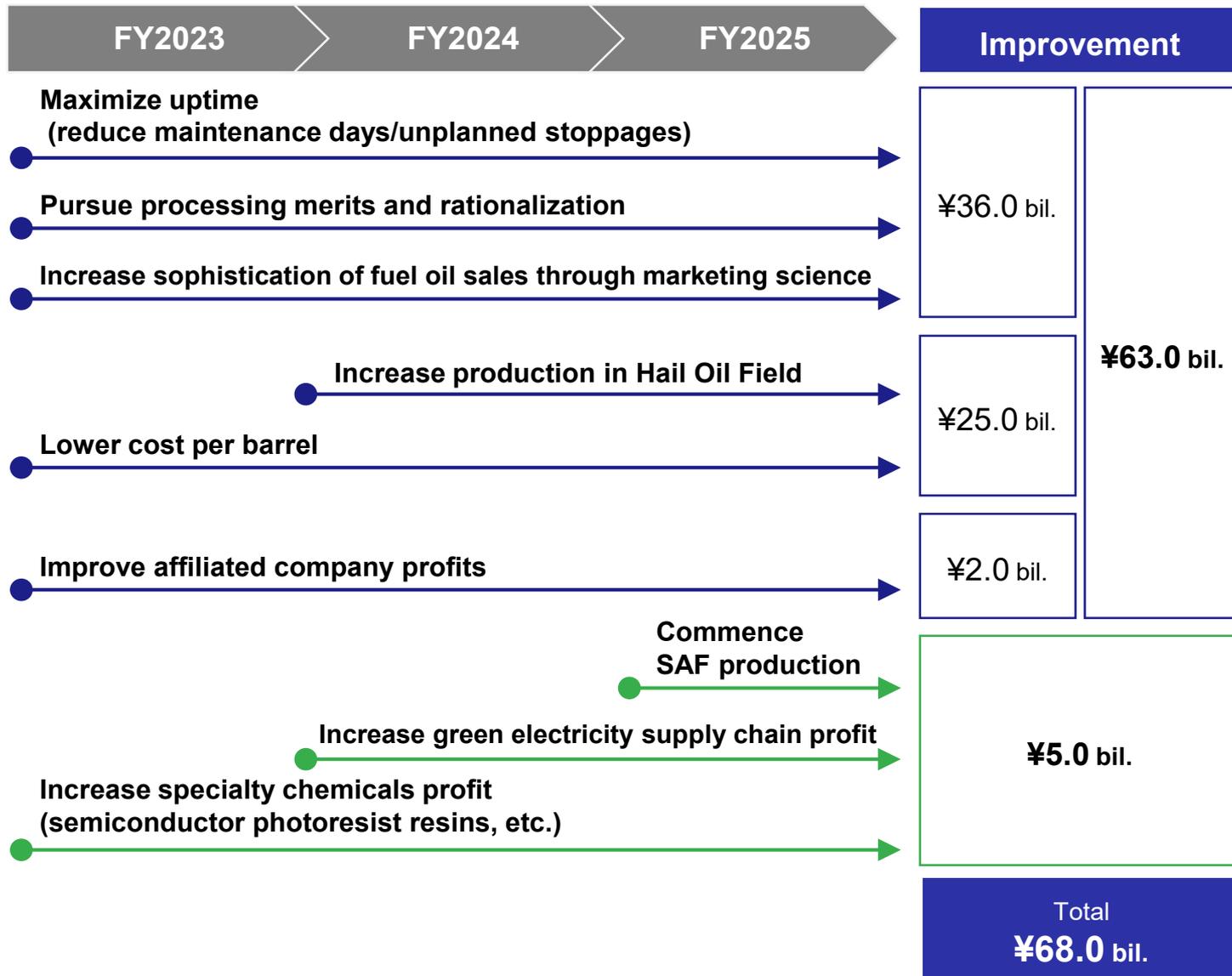
HRX : Pursue a people strategy that **motivates employees and harnesses their skills**

DX : **Transform business model** through digital capabilities and change management

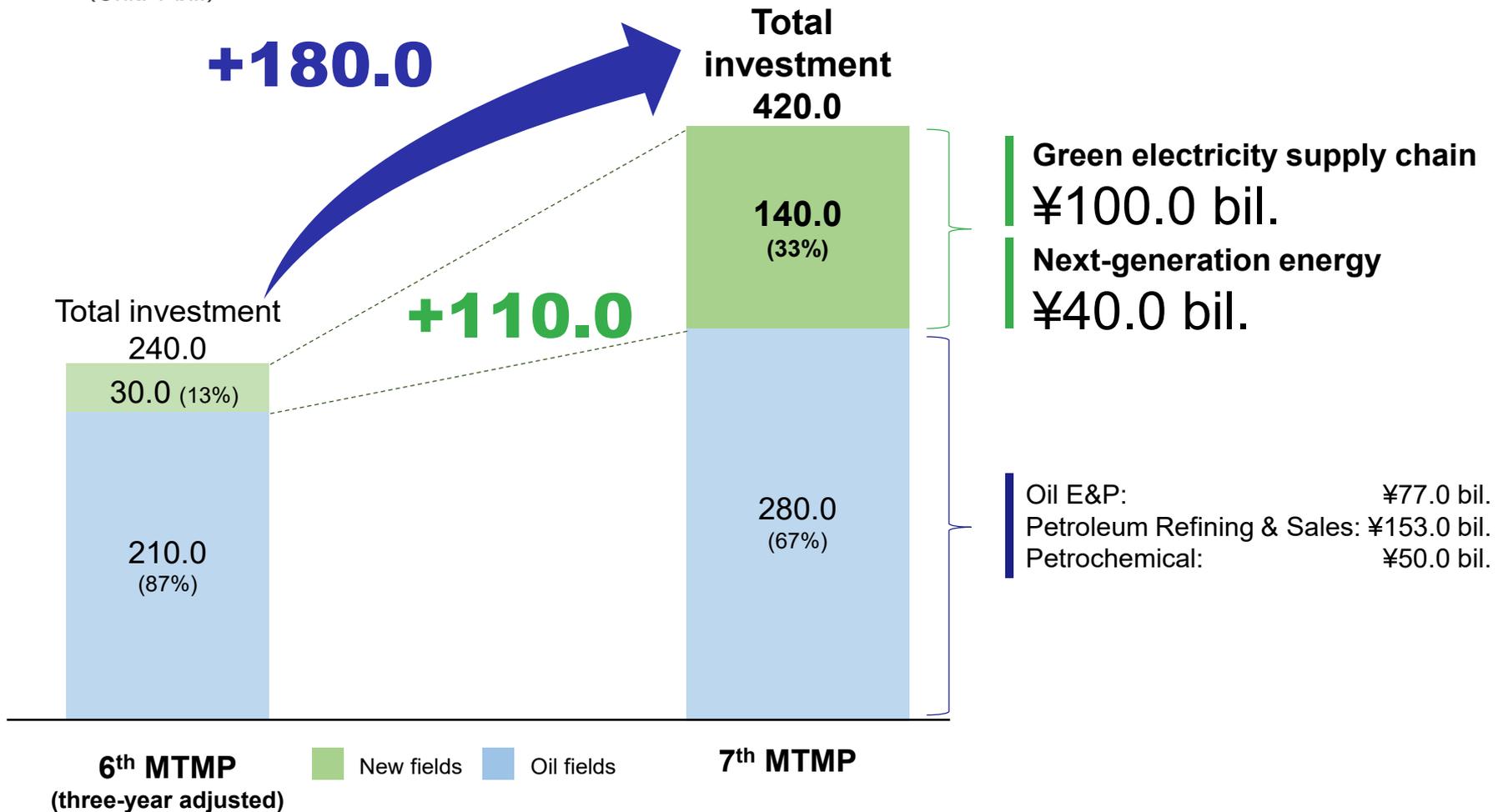
GX : Realize roadmap to achieve net zero carbon emissions

Secure ordinary profit of ¥165.0 billion, with a focus on structural improvements in Oil Business.

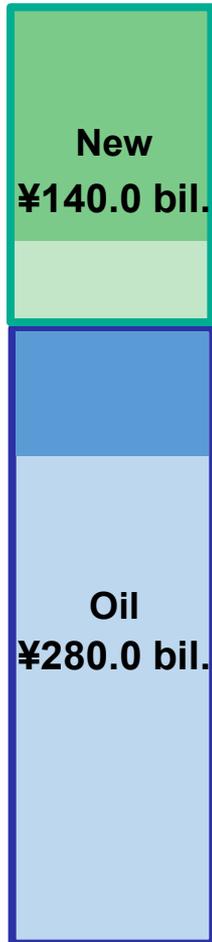




(Unit: ¥ bil.)



(Unit: ¥ bil.)



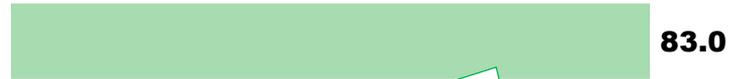
Incl. DX/system investment of ¥36.0 bil.  
+¥20.0 bil. vs. 6<sup>th</sup> MTMP

## Green electricity supply chain

¥100.0 bil.

+¥73.0 bil. vs. 6<sup>th</sup> MTMP

Wind power generation



Electric power adjustment & sales, etc.



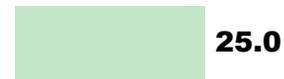
Onshore ¥44.0 bil.  
Offshore ¥39.0 bil.

## Next-generation energy

¥40.0 bil.

+¥37.0 bil. vs. 6<sup>th</sup> MTMP

SAF



Next-generation energy, etc.



## Oil Business (strategic investment)

¥64.0 bil.

+¥3.0 bil. vs. 6<sup>th</sup> MTMP

Oil E&P



Petroleum Refining & Sales



Petrochemical



## Oil Business (stable supply investment)

¥216.0 bil.

+¥67.0 bil. vs. 6<sup>th</sup> MTMP

Oil E&P



Petroleum Refining & Sales



Petrochemical



Refinery safety operations, etc. ¥110.0 bil.  
SS-related safety, etc. ¥10.0 bil.  
Other ¥22.0 bil.

## Policy

FY2023

FY2024

FY2025

## KPI

HRX

**Pursue a people strategy that motivates employees and harnesses their skills**

- Introduce compensation system to boost motivation (increase wages)
- Bolster autonomous career development (expand/improve job challenge system)
- Increase investment in strengthening HR and employees' skill (double investment in HR development)
- Step up recruitment of women/mid-career hires (double proportion of female managers, achieve ratio of 50% mid-career hires)

Engagement index  
≥ **60** point

HR dev. investment  
**¥180,000**  
/person

DX

**Transform business model through digital capabilities and change management**

- Strengthen competitiveness of existing businesses/operations through DX
- Cultivate core digital personnel and hold DX Forum
- Upgrade data utilization infrastructure and strengthen data governance
- Leverage data analysis in development of New businesses
- Complete shift to paperless operations
- Increase operational efficiency leveraging IT/DX

Core digital personnel  
**900** people

GX

**Realize roadmap to achieve net zero carbon emissions**

- Realize roadmap for net zero carbon emissions

2030 GHG emissions reduction  
≥ **30%**  
(vs. 2013)

## Pursue a people strategy that motivates employees and harnesses their skills

### Motivation/Autonomy

#### Bolster autonomous career development opportunities

Expand/improve job challenge system

#### Introduce compensation system to boost motivation

Provide employee returns

**(8% wage increase\*<sup>1</sup>)**

Revision of the senior employee system (same treatment system as for permanent staff)

Thoroughly implement a results-oriented approach by reviewing valuation system

#### Expand flexible work styles to boost productivity

##### Limited work location system

WFH up to 5 days/week

Telework outside home up to 8 days/month

Flexible working hours with no core hours

### Capabilities/Diversity

#### Strengthen managerial talent/specialist pool

Increase/develop managerial talent/specialists

#### Increase investment in upskilling of employees

Double investment in HR development

#### Pursue hiring of diverse talent (D&I)

Step up recruitment of women/ mid-career hires

**(double proportion of female managers\*<sup>2</sup>)**

**(achieve ratio of ≥50% mid-career hires\*<sup>3</sup>)**

#### Enhance talent portfolio

Visualize quality (skills) and quantity (manpower) of required talent by revamping personnel system, and ensure placement and training of right people in right role



**Engagement index\*<sup>4</sup>**

**≥60 points**

**Educational investment per employee\*<sup>5</sup>**

**¥180,000**  
**(double current amount)**

\*1 FY2023 average of union member (vs. FY2022)

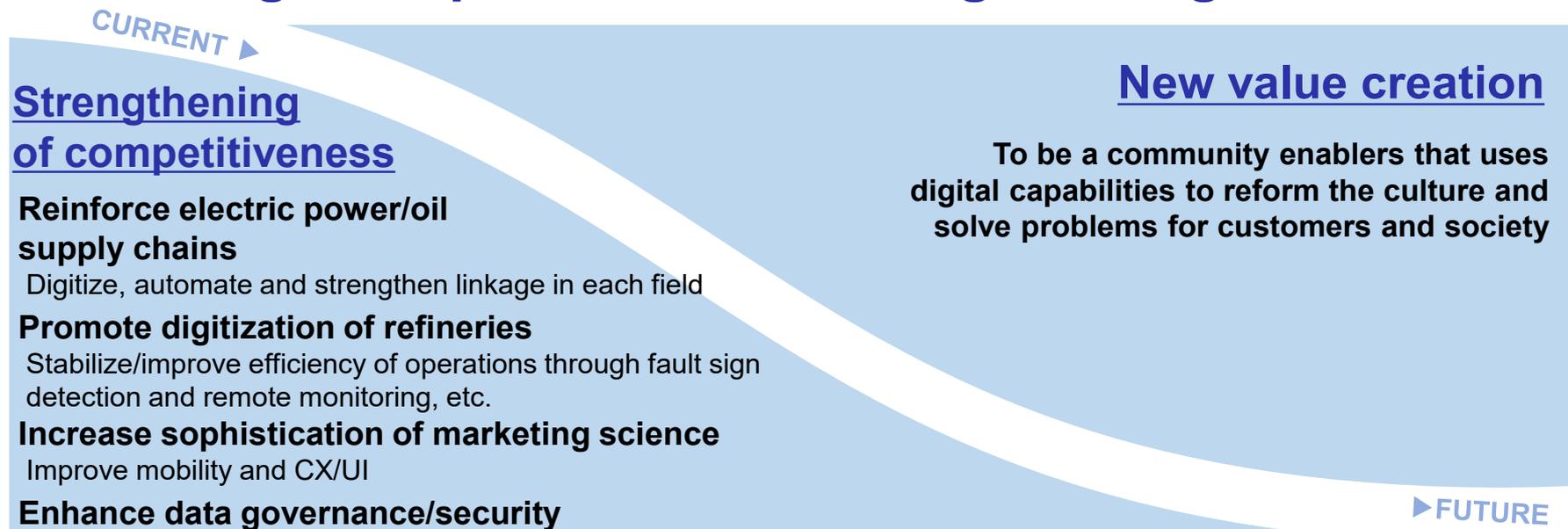
\*2 FY2025 target 10% (double vs. FY2022)

\*3 Target from FY2023

\*4 FY2025 target, calculated based on Employee Consciousness Survey

\*5 FY2025 target

# Transform business model through digital capabilities and change management



## Establishment of DX promotion foundation and cultivation of digital talent

**DX event participation**  
Total 20,000 people/year

**DX Forum \*1**  
24 times/year

**CDO CUP \*2**  
60 projects/three years

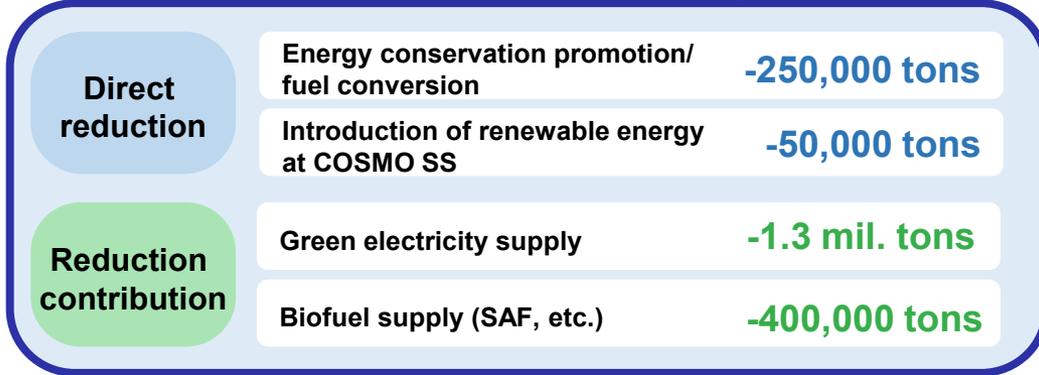
**IT/DX-driven operational efficiency improvement**  
10% (vs. 2022)

**Development of 900 core digital personnel**

\*1 DX Forum: Program to provide employees with information on the latest digital-related technologies and DX talent qualities, with the aim of improving their DX literacy

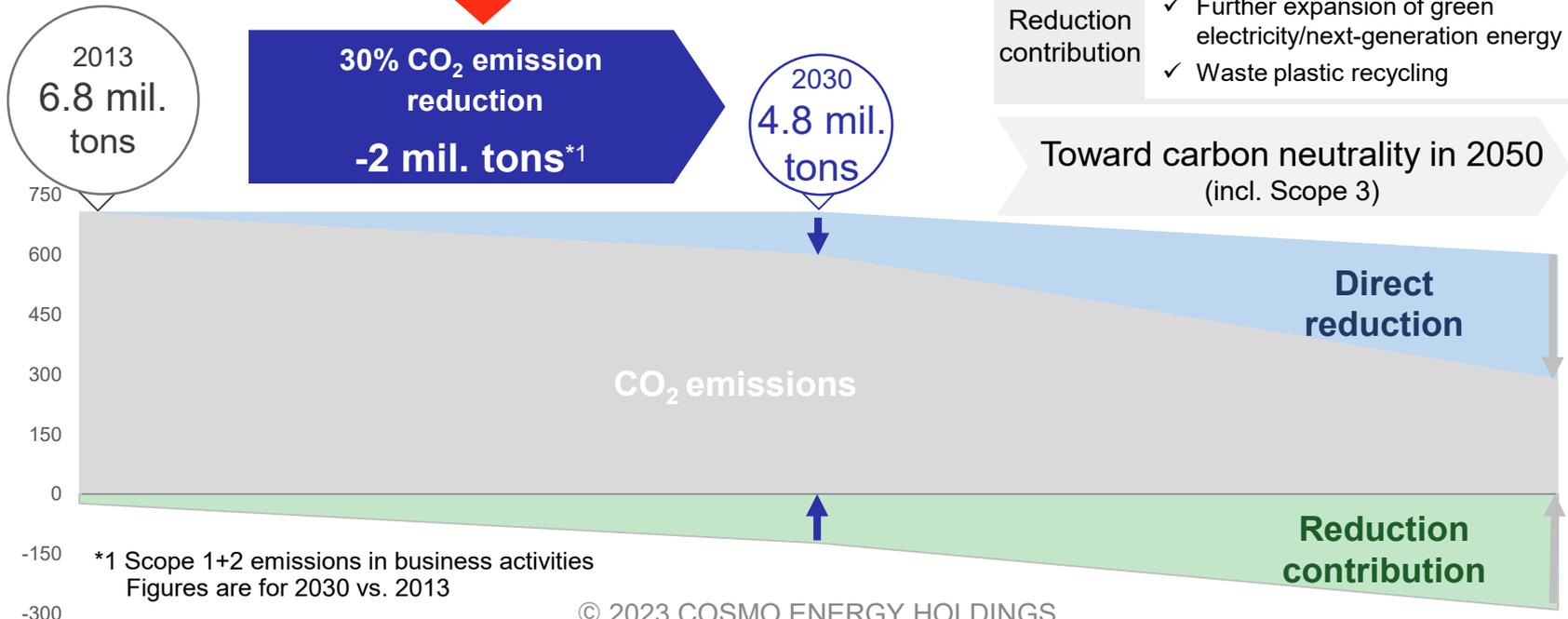
\*2 CDO CUP: An in-house program to support the execution of DX projects selected from within the Cosmo Energy Group by a DX Taskforce, with the aim of accelerating DX

Through the initiatives set out in The Seventh Med-Term Mgmt. Plan and Vision 2030, we will reduce our CO<sub>2</sub> emissions by two million tons (30% reduction from 2013) by 2030. To contribute to achieving carbon neutrality for society as a whole, **we aim to achieve net zero carbon emissions including scope 3 in 2050.**



### Initiatives to realize decarbonized society

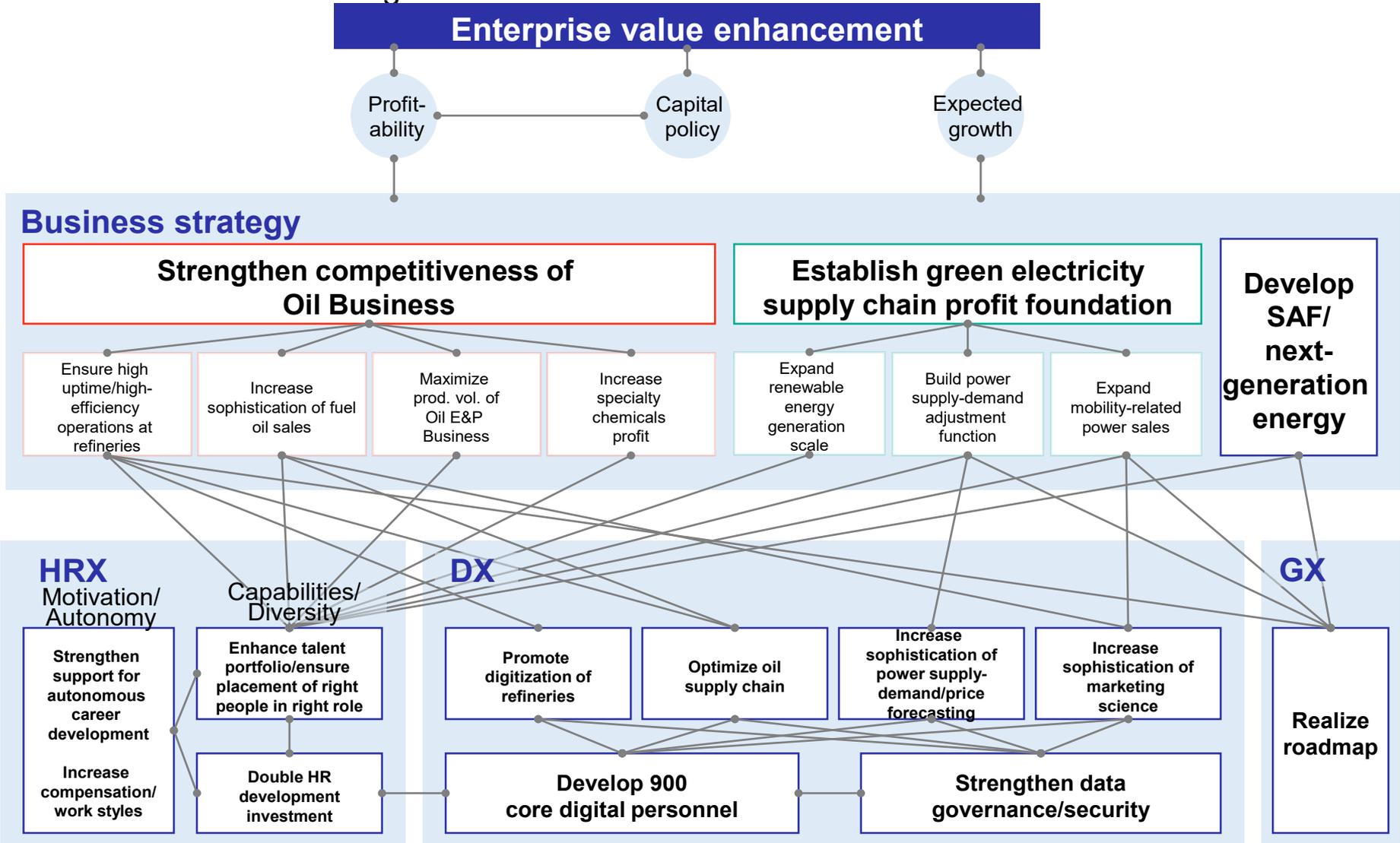
- |                        |   |
|------------------------|---|
| Direct reduction       | <ul style="list-style-type: none"> <li>✓ Realization of CCS/CCUS by partnering with Abu Dhabi National Oil Company</li> <li>✓ Fuel conversion to hydrogen, ammonia, etc.</li> </ul> |
| Reduction contribution | <ul style="list-style-type: none"> <li>✓ Further expansion of green electricity/next-generation energy supply</li> <li>✓ Waste plastic recycling</li> </ul>                         |



# 7th MTMP\_Enterprise Value Enhancement Through Financial and Non-Financial Initiatives



Enhance enterprise value by integrally implementing our business strategy and a transformation of management foundation.



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**1** Recap of The Sixth  
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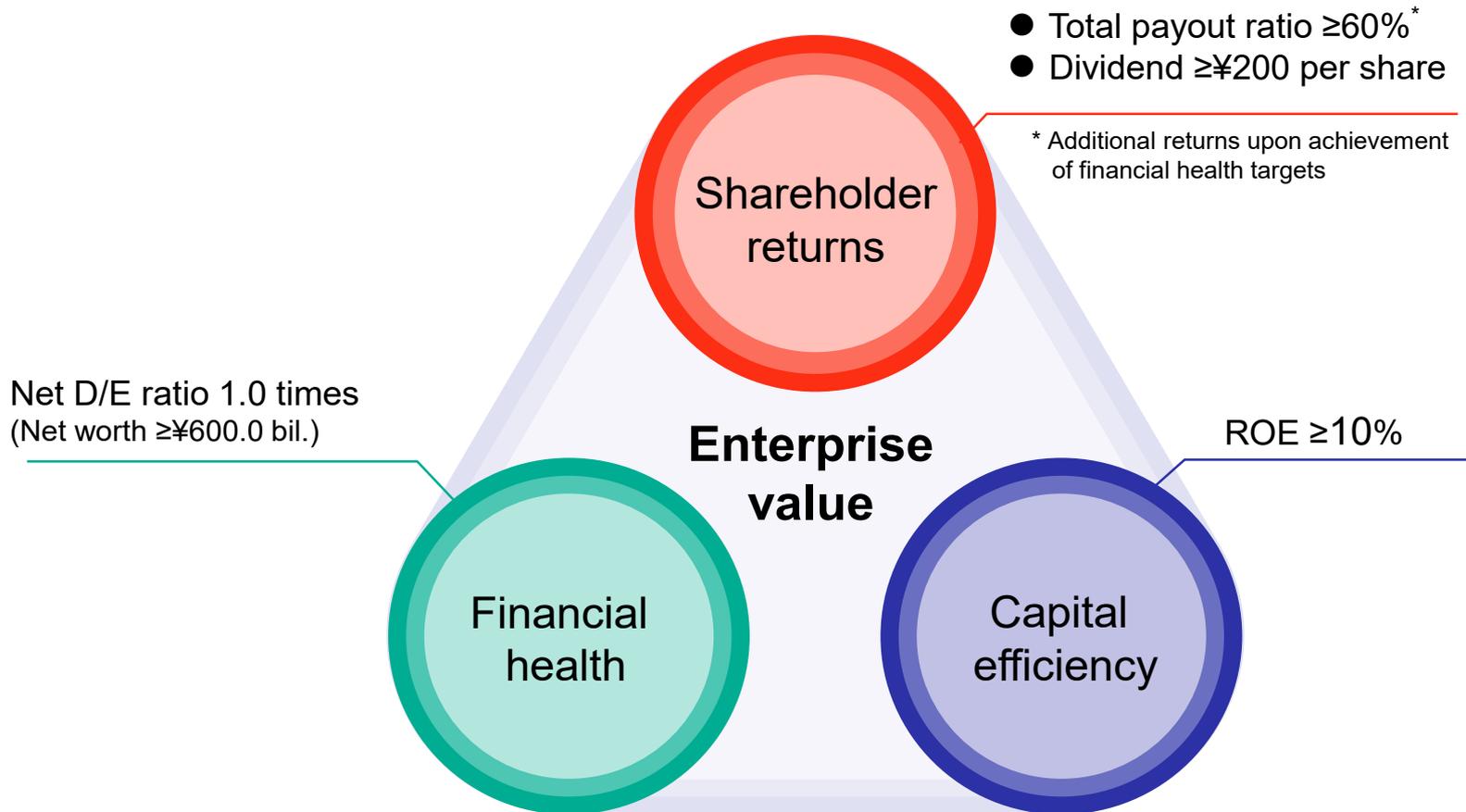
Section 3  
**3** The Seventh Consolidated Medium-Term  
Management Plan

Basic Policies and Strategies

**Capital Policy**

Management Goals

We aim to maximize enterprise value through a three-pronged approach that places equal emphasis on shareholder returns, financial health and capital efficiency.

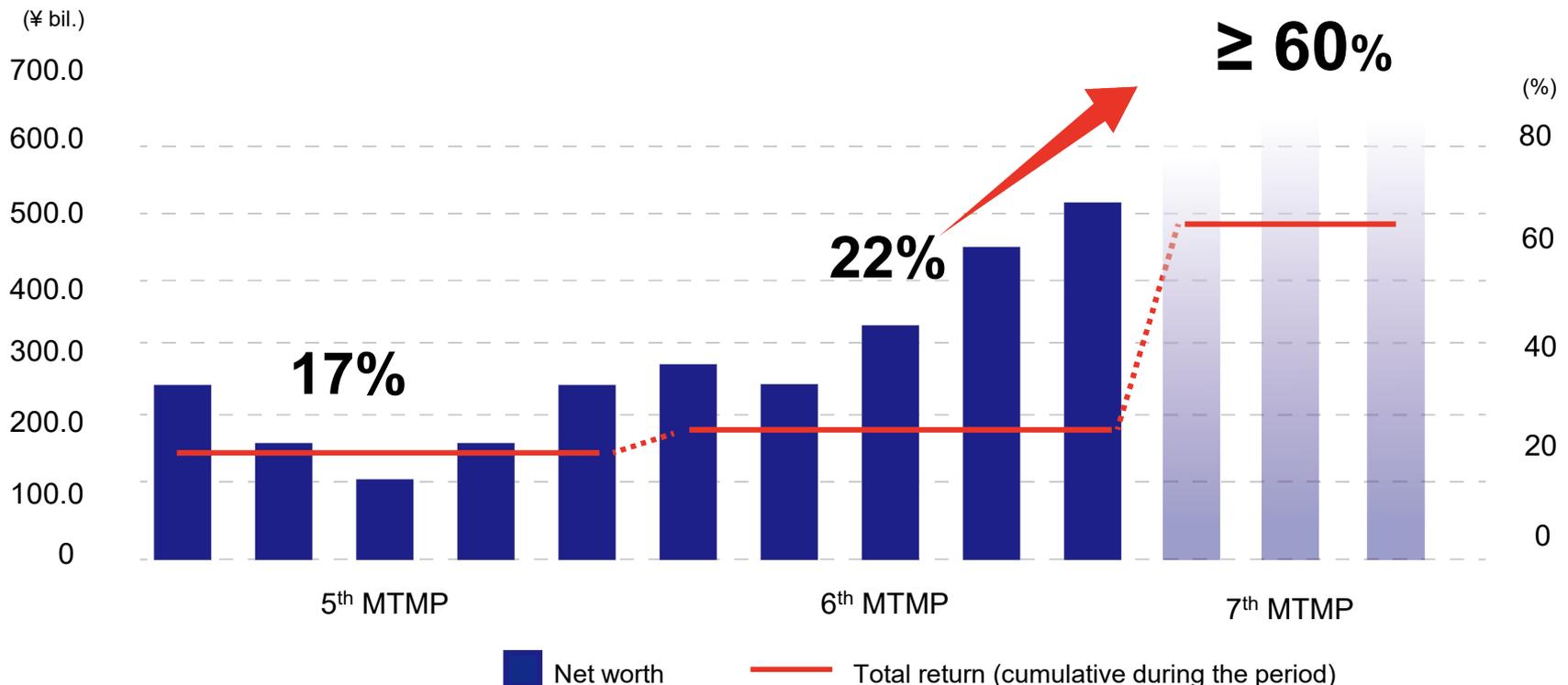


## Return policy

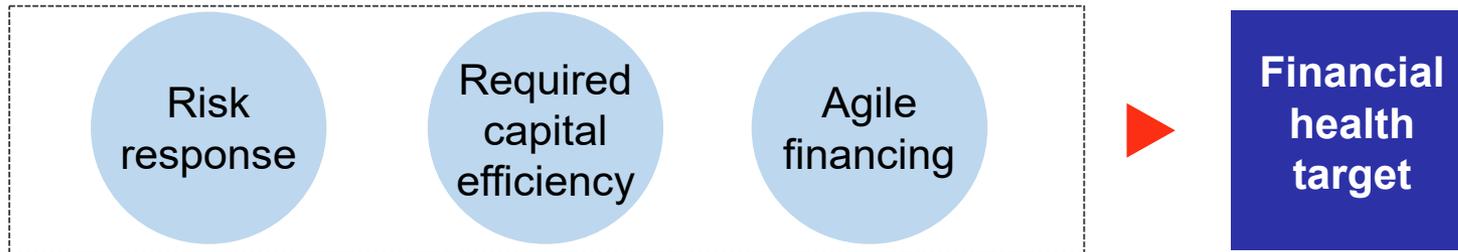
- Realize a cumulative three-year total payout ratio of at least 60%\* of net profit excl. impact of inventory valuation
- Pay a stable minimum dividend of ¥200 per share

\* In principle, provide additional returns if financial health targets are achieved

Timing of additional returns to be decided during the three-year period of the Med-Term Mgmt. Plan



- We carefully scrutinized our necessary net worth from multiple perspectives: risks associated with our assets in each segment, required capital efficiency, and agile financing.
- We set a target net debt-to-equity ratio of **1.0 times** based on the assumption that we can continue to maintain a balance between debt and net worth on par with current levels.
- Net worth calculated based on risks associated with assets in each segment\* has been set at **¥600.0 bil. or more.** \*Calculated based on assets as of end of FY2021

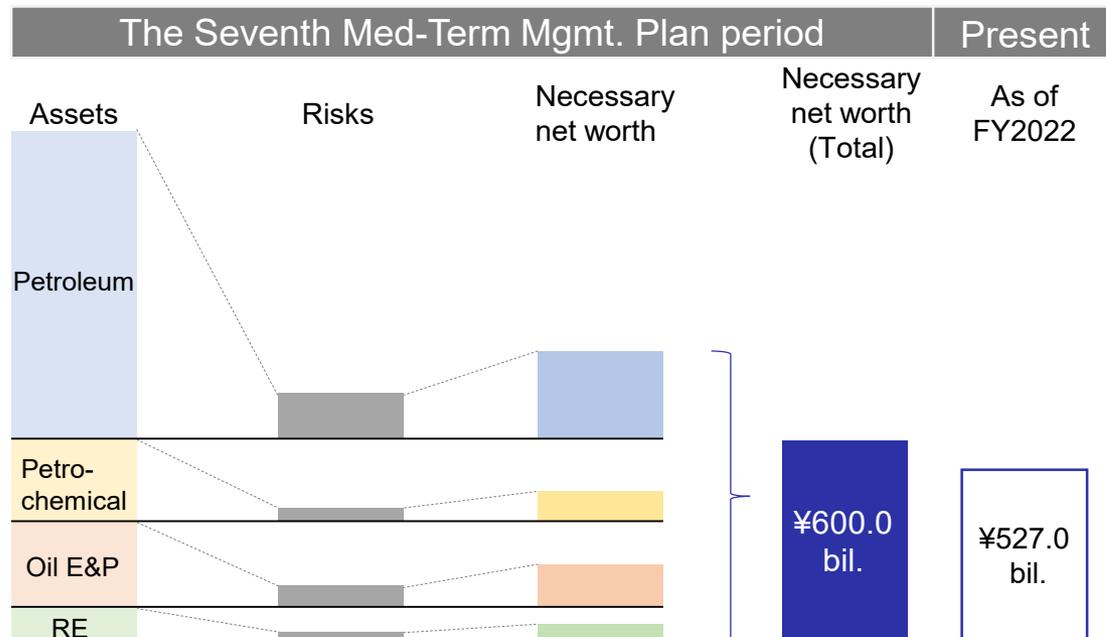


### Method for risk-based calculation of necessary net worth

Selected comparable companies from Japan and abroad for each business segment as follows (total approx. 130 companies)

Petroleum	Approx. 40 co.
Petrochemical	Approx. 30 co.
Oil E&P	Approx. 30 co.
Renewable Energy	Approx. 30 co.

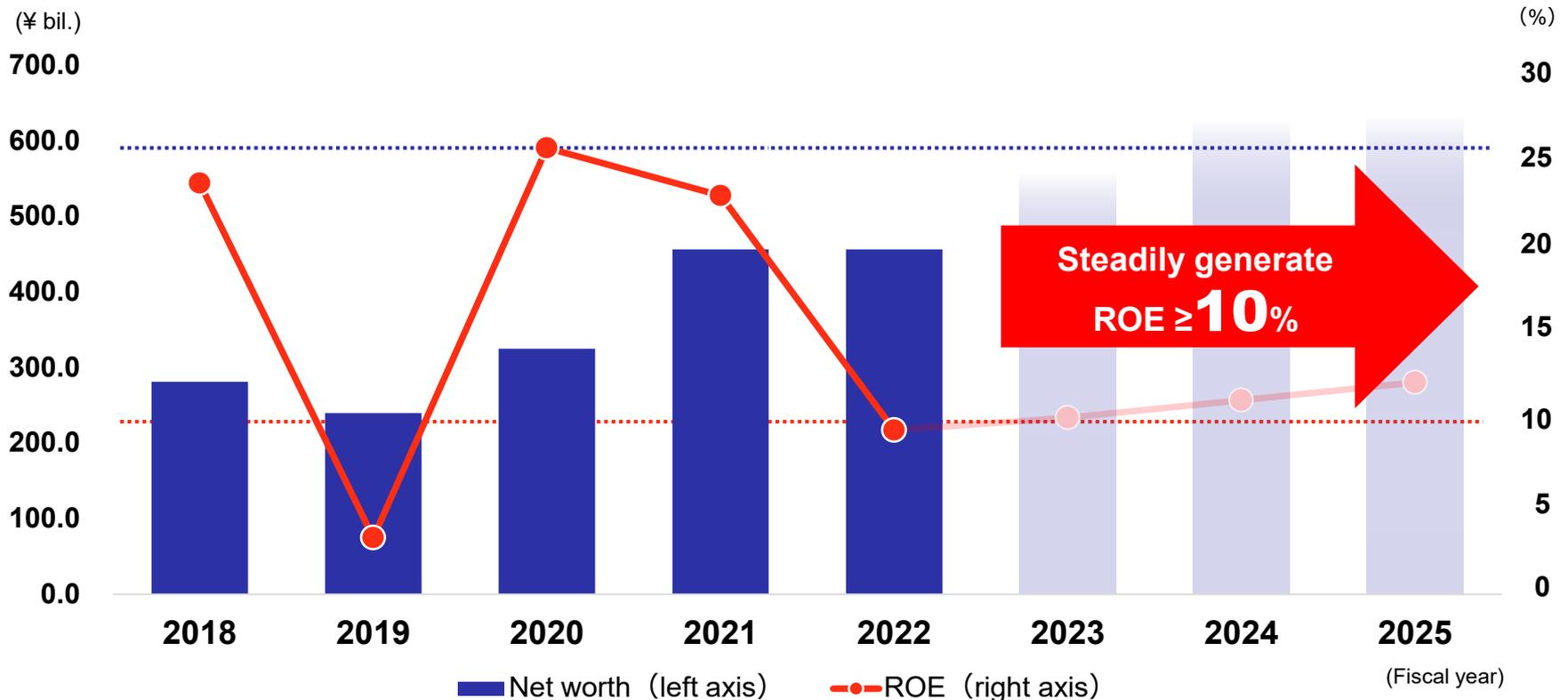
Analyzed performance of each company in previous fiscal years and calculated risks associated with assets and necessary capital to offset these risks



We project that net worth, which increased significantly under The Sixth Med-Term Mgmt. Plan, will improve further toward our target.

Meanwhile, we aim to steadily generate ROE of 10% or more.

**【Trend in ROE and net worth】**



\*Based on net profit excl. impact of inventory valuation

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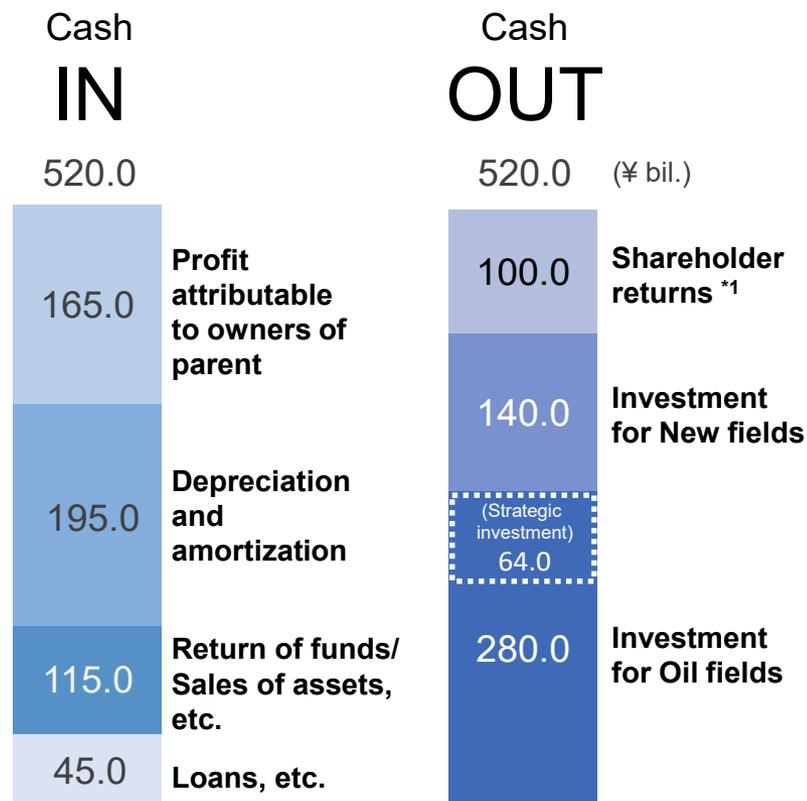
Basic Policies and Strategies

Capital Policy

**Management Goals**

## The Seventh Med-Term Mgmt. Plan cumulative cash balance

## Assumed financial indicators at end of FY2025



	Target at end of FY2025	Ref.) Expected results at end of FY2022
ROE	10%	14%
Net worth (Net worth ratio)	¥600.0 bil. (28%)	¥527.0 bil. (26.2%)
Net D/E ratio	1.0 times	1.05 times
Net interest-bearing debt	¥600.0 bil.	¥554.7 bil.

\*1 Calculated based on a total payout ratio of approx. 60%

## Shareholder returns

Total payout ratio  
(excl. impact of  
inventory valuation)

**≥60%**

(three-year cumulative)

Dividend

**≥¥200** per share

## Financial health

Net D/E ratio

**1.0 times**

(Net worth ≥¥600.0 bil.)

## Capital efficiency

ROE

**≥10%**

ROIC

**≥6%**

## Profitability

Ordinary profit  
(excl. impact of  
inventory valuation)

**≥¥165.0** bil.

(Profit attributable  
to owners of parent  
≥¥60.0 bil.)

## Future investment

Investment in  
New fields

**¥140.0** bil.

(three-year cumulative)

## DX

Development of  
core digital personnel

**900** people

## HRX

Engagement index

**≥60 points**

Human capital  
investment

**¥180,000**

/person

## GX

GHG emission  
reduction  
2030 vs 2013  
(incl. Scope 1,2 and  
reduction contribution)

**-30%**

## **Appendix**

Present

The Seventh Med-Term Mgmt. Plan period

**FY2022**  
**Ordinary profit**  
**¥44.0 bil.**

**FY2025**  
**Ordinary profit**  
**¥55.0 bil.**

**Petroleum Refining**

- Realize high uptime/high-efficiency operations
  - Promote digitization of refineries
    - \* Introduce VR into facilities and increase maintenance precision, etc.
  - Further improve operating rate by bolstering operational/maintenance capabilities
    - \* Establish APM (Asset Performance Management) system, etc.
  - Shorten planned stoppages (OA improvement)
    - \* Promote shift to routine maintenance (RM), etc.
  - Optimize to IT/DX-driven supply chain
    - \* Increase sophistication of refinery production plan and automate fleeting plan, etc.

Operating rate  
(CD basis)  
**91%**  
\*Four-year average  
-2022

Operating rate  
(CD basis)  
**94%**  
\*Four-year average  
-2022

**Petroleum Sales** - Sophisticate fuel oil sales

- Increase sophistication of fuel oil sales through marketing science
- Establish SS maintenance/business category conversion model
  - \* Leverage customer data from full-service and self-service SS and build remote business negotiations model

YoY sales of  
four products  
**101.1%**

**Efficient  
digital-driven  
sales**

Present

The Seventh Med-Term Mgmt. Plan period

**FY2022**  
Ordinary profit  
**¥83.0 bil.**

**FY2025**  
Ordinary profit  
**¥90.0 bil.**

Crude oil  
production  
volume  
**42kB/D**

### Strengthen profit structure

- Maximize Hail Oil Field production volume at an early stage
- Maximize production volume at three existing Abu Dhabi oil fields (Improve fluid handling capabilities at Mubarras Oil Field, etc.)
- Optimize operational costs (equivalent to approx. -10% per unit)

Crude oil  
production  
volume  
**45kB/D**

### Pursue existing exploration block development potential

- Undertake exploration and production in Abu Dhabi Offshore Block 4
- Undertake measures to prevent attenuation of production at three existing Abu Dhabi oil fields (Maintain future production volume, with a focus on the Mubarras Oil Field, and increase recovery rate)

### Explore ways to achieve low carbonization

- Consider conducting CCS/CCUS proof-of-concept testing (partner with Abu Dhabi National Oil Company)

Present

The Seventh Med-Term Mgmt. Plan period

**FY2022**  
Ordinary profit  
**¥4.0 bil.**

**FY2025**  
Ordinary profit  
**¥9.0 bil.**

Olefin/  
aromatics  
¥-0.9 bil.

Olefin/  
aromatics  
**¥2.5 bil.**

Specialty  
chemicals  
¥4.9 bil.

Specialty  
chemicals  
**¥6.5 bil.**

### Realize high uptime/high-efficiency operations

Obtain certification as Super Nintei Jigyosha (super accredited operator) (FY2024 planned)

Deepen cooperation between Petroleum Refining and Petrochemical businesses and strengthen competitiveness

\*Optimize production plan through refining and petrochemicals and effectively utilize unused fractions

Maximize paraxylene production volume according to market environment

Continue to ensure safe and stable operations

### Expand production of chemical products

Increase MEK production by converting unused fractions into feedstock

Boost production of eco-friendly products, such as those used in cosmetics, etc.

### Increase production of semiconductor photo resist resins

Increase production of thick film resist resins

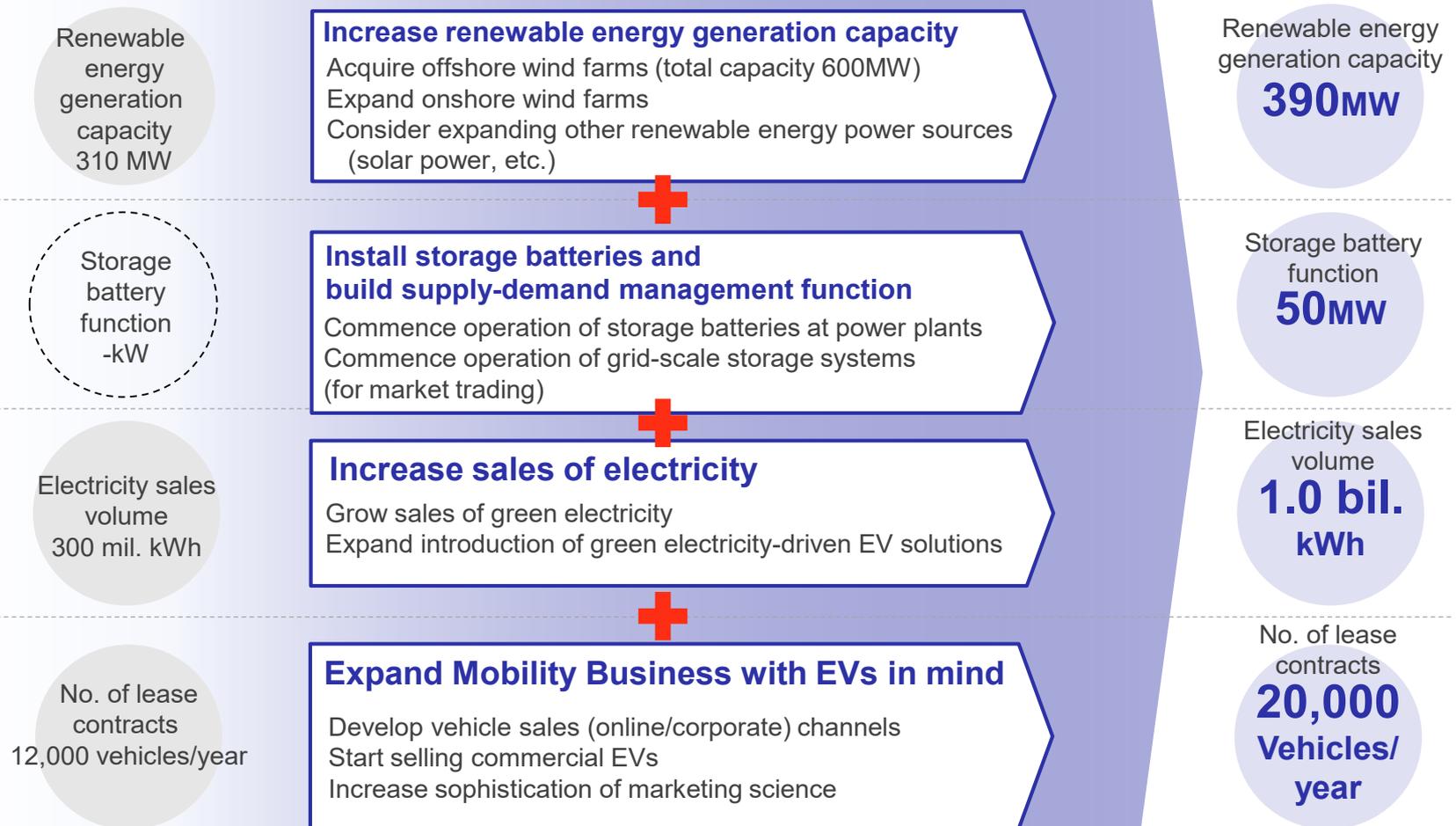
Boost production of ArF resist resins

Secure and develop personnel in line with facility expansion according to increase in demand

Present

The Seventh Med-Term Mgmt. Plan period

## Construction of green electricity supply chain



FY2025

Ordinary profit  
¥8.0 bil.

Renewable energy generation capacity

**390MW**

Storage battery function

**50MW**

Electricity sales volume

**1.0 bil. kWh**

No. of lease contracts

**20,000 Vehicles/year**

## The Seventh Med-Term Mgmt. Plan period

### Mass produce Japan's first locally-made SAF

#### Produce SAF from waste cooking oil \*1

Start construction of new manufacturing line by end of 2023

Start commercial operations in second half of FY2024 - early FY2025

\*1 Established LLC "SAFFAIRE SKY ENERGY" with JGC Holdings and Revo International in Nov. 2022

**FY2025**  
Ordinary profit  
¥1.0 bil.

**SAF supply**  
**30,000 KL**

#### Produce SAF using Alcohol to JET (ATJ) technology

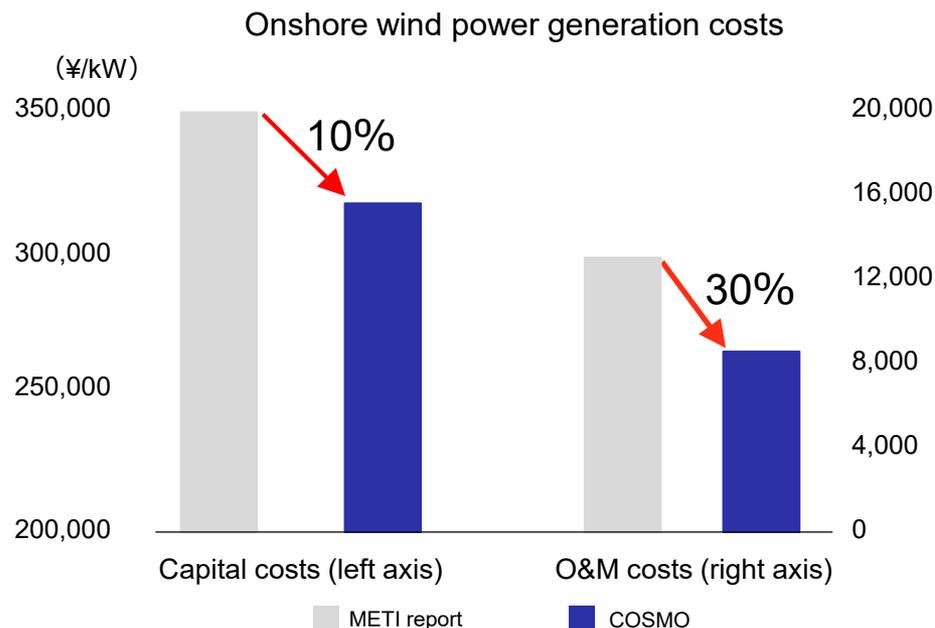
Completed FS during FY2022

After completing FID in FY2024, aim to start construction from FY2025 and commence commercial operations in FY2027

#### Select/develop next-generation energy, considering feasibility and business viability

- Establish hydrogen stations for FCV trucks (planned for FY2024)
- Investigate use of hydrogen production technology that immobilizes carbon from fractions generated at refineries
- Develop olefin production technology through direct decomposition of waste plastics
- Validate ammonia fuel conversion technology in naphtha cracking furnaces, etc.

- Specializing in wind power for over **20 years**, Cosmo Eco Power operates under an integrated system that encompasses development through operations and maintenance (O&M).
- Onshore wind power generation sites\* are highly competitive, with an advantage of approx. **10%** over the capital costs **¥347,000/kW** published by the METI, and approx. **30%** over the **¥13,500/kW** operation and maintenance costs.
- IRR boasts high profitability of **approx. 10%**.
- We will leverage the high competitive footing established at onshore wind power generation sites to develop our offshore wind power capabilities.



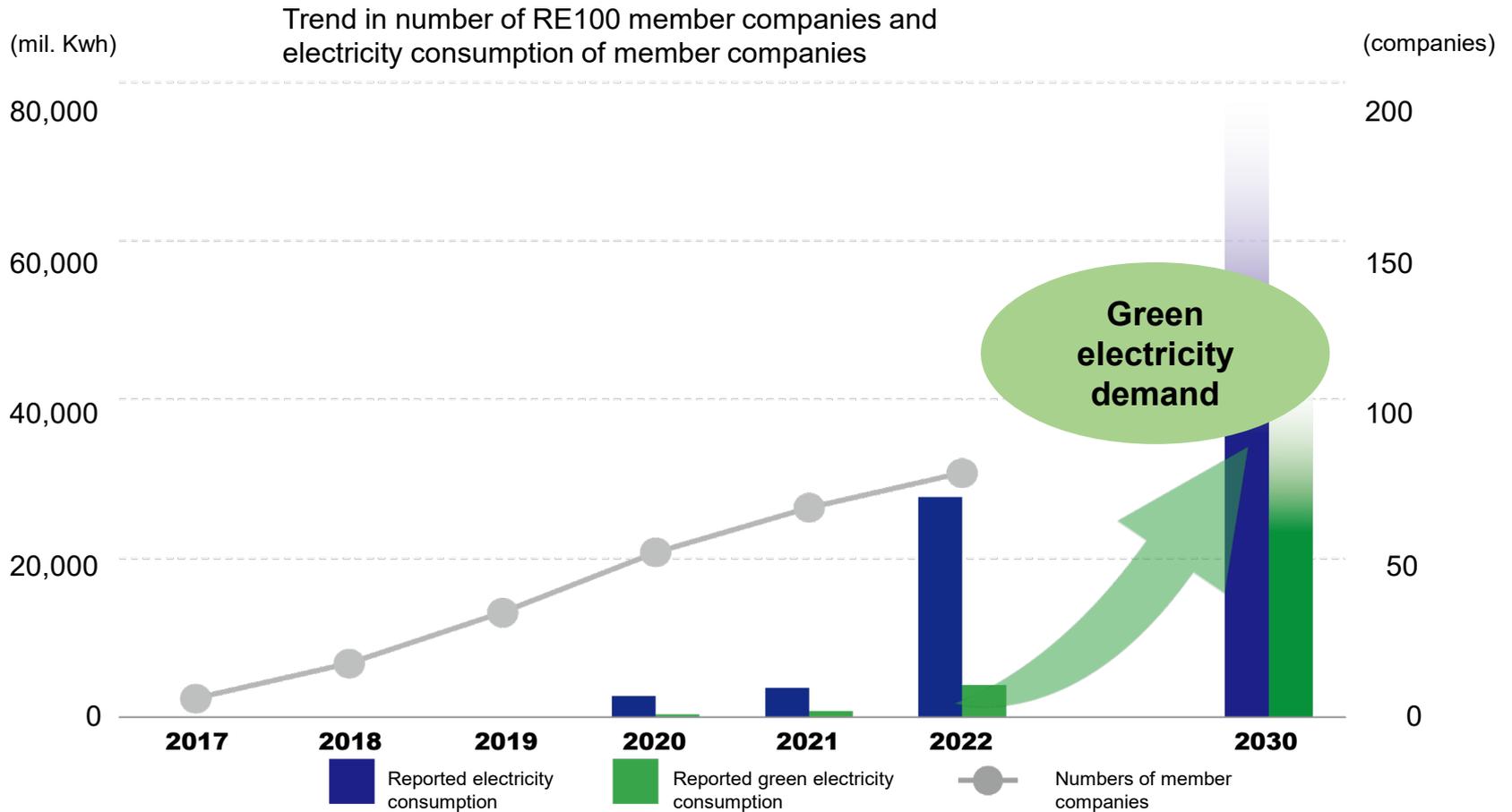
**Development results during The Sixth Med-Term Mgmt. Plan\***

Newly developed facility capacity  
Approx. **150 MW**

IRR  
Approx. **10 %**

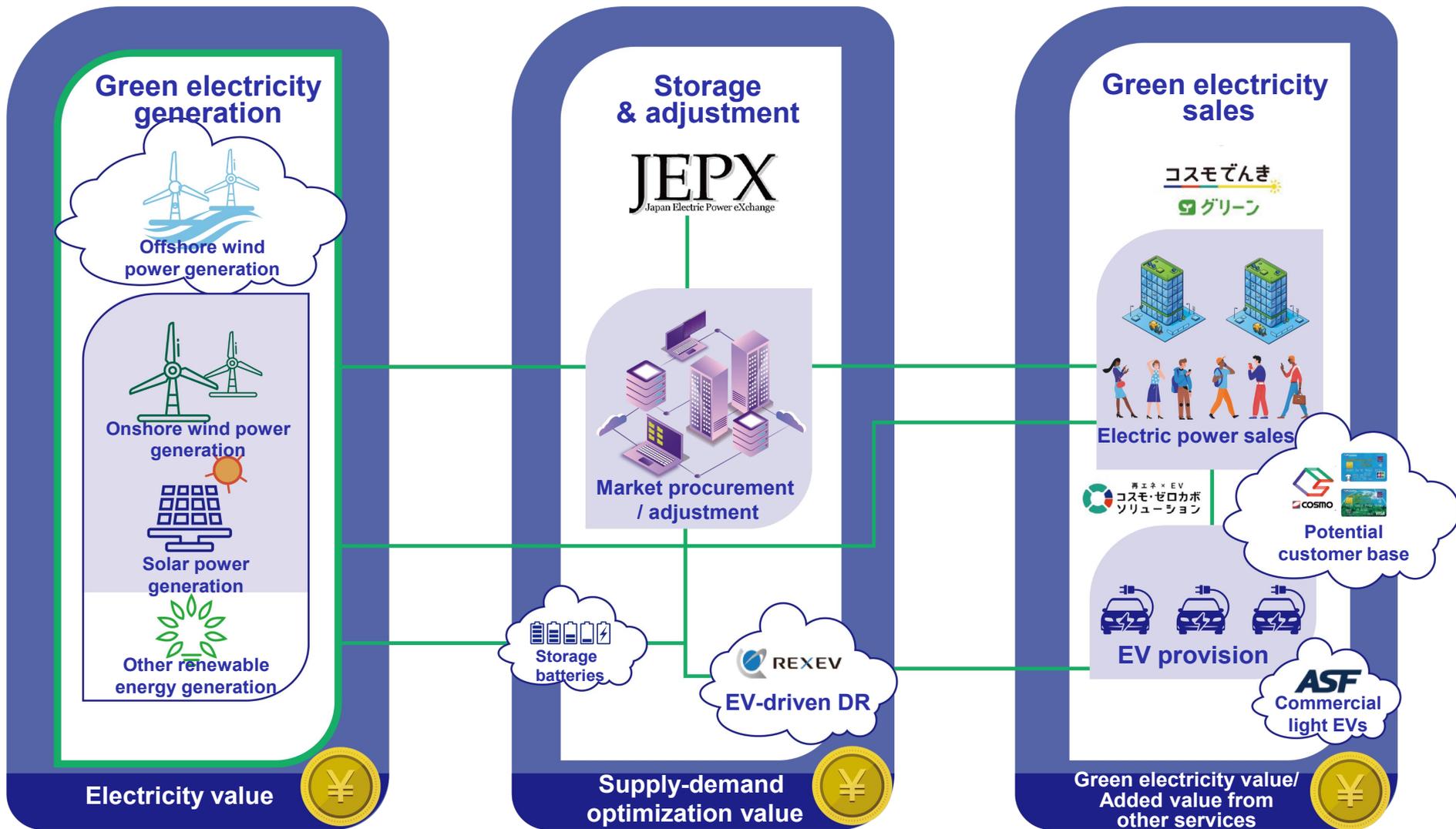
\* Kamiyuchi (Hokkaido)  
Chuki (Wakayama)  
Watarai Second Stage (Mie)  
Himekami (Iwate)  
Oita (Oita)  
Goto-Hassakubana (Nagasaki)  
(Includes some plans)

- While the number of firms who choose to join the international RE100 initiative is increasing every year, the ratio of green electricity consumed by member companies is significantly low.
- Demand for renewable electricity will increase further as the number of member companies is expected to increase further.



# COSMO Initiatives and Customer Base in Green Electricity Supply Chain

Company/service name	Description	Results (as of Dec. 31, 2022)
 <b>Cosmo Eco Power</b> Cosmo Eco Power Co., Ltd.	Wind power generation business	No. of wind turbines: <b>189</b> Capacity: <b>302,000 kW</b> Industry share: approx. <b>6 %</b>
 <b>Cosmo Zero Carbon Solution</b>	Provides solutions centered on renewable energy and EV leasing and sharing, etc.	Cosmo Denki Business Green introduced at approx. <b>1,150</b> facilities
 <b>Business alliance with REXEV</b>	Aiming to acquire energy management functions through alliance with energy management developer and designer REXEV	—
 <b>Capital alliance with ASF</b>	Expanding car leasing and sharing lineup and strengthening renewable energy suppliers through partnership with ASF, which develops, manufactures and sells compact EVs	—
 <b>Partnership agreement with e-Mobility Power</b>	Establishing rapid EV charging infrastructure	Rapid charging equipment installed at <b>20</b> service stations
 <b>Cosmo My Car Lease</b>	Car lease business for individuals	Lease contracts signed for cumulative total of <b>104,541</b> vehicles
 <b>Carlife Square app</b>	Service app for individuals	<b>5.65</b> mil. app DLs
 <b>Cosmo The Card</b>	Credit card business for individuals	<b>3.97</b> mil. valid cardholders
 <b>Cosmo The Card Eco</b>	Credit card business for individuals to support environmental conservation activities	<b>62,000</b> valid cardholders



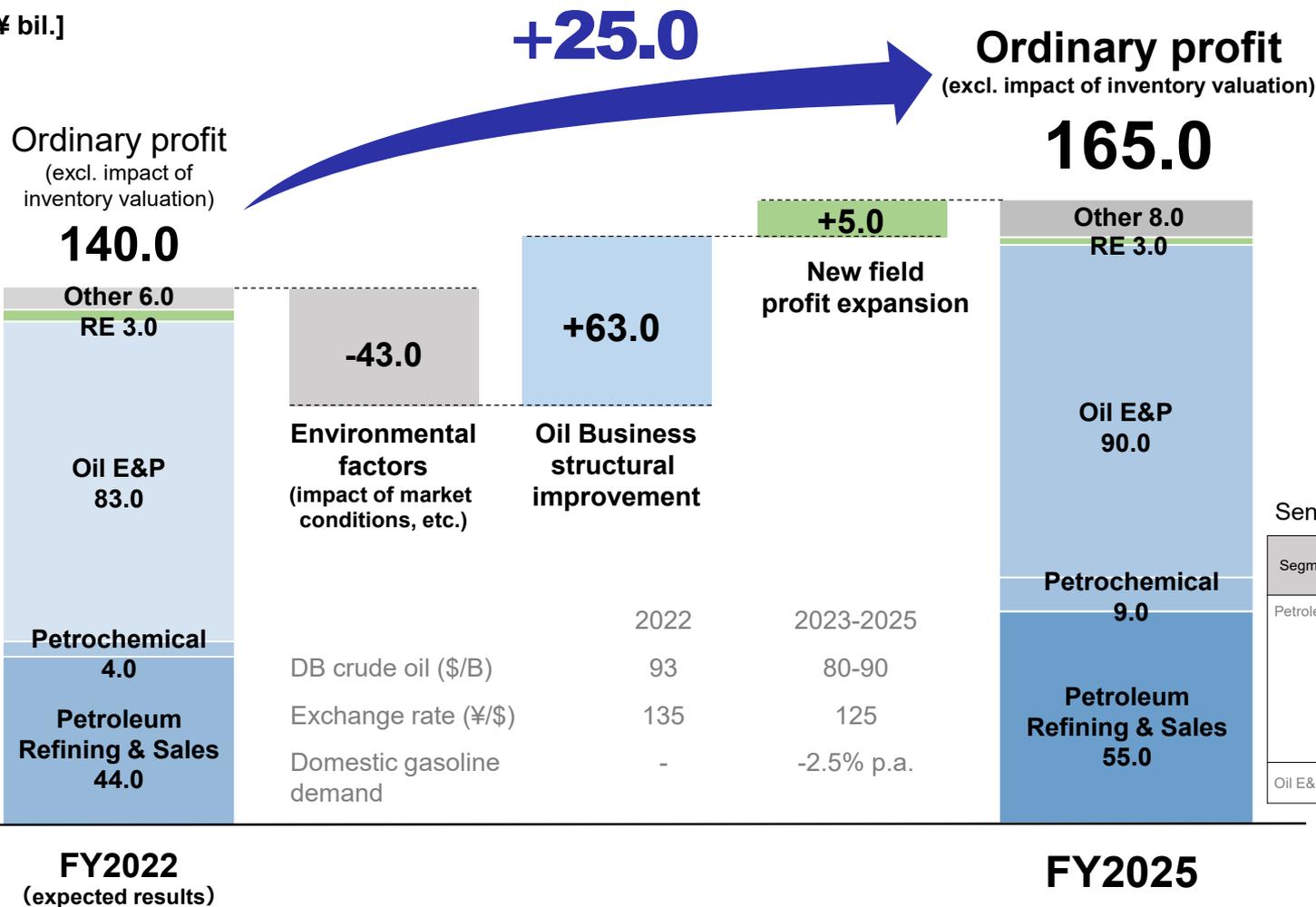
Existing functions/assets



Specific initiatives under consideration/  
potential initiatives

Secure ordinary profit of ¥165.0 bil., with a focus on structural improvements in Oil Business.

[Unit: ¥ bil.]



	2022	2023-2025
DB crude oil (\$/B)	93	80-90
Exchange rate (¥/\$)	135	125
Domestic gasoline demand	-	-2.5% p.a.

Sensitivity (Unit: ¥bil.)

Segment	Item	DB crude oil	Exchange rate
Petroleum	Inventory impact	+2.5	+2.0
	Refinery fuel cost etc.	-0.5	-0.4
	Total	+2.0	+1.6
Oil E&P		+1.5	+1.0

Certain statements made and information contained herein constitute "forward-looking information" (within the meaning of applicable Japanese securities legislation). Such statements and information (together, "forward looking statements") relate to future events or the Company's future performance, business prospects or opportunities. Forward-looking statements include, but are not limited to, statements with respect to estimates of reserves and or resources, future production levels, future capital expenditures and their allocation to exploration and development activities, future drilling and other exploration and development activities, ultimate recovery of reserves or resources and dates by which certain areas will be explored, developed or reach expected operating capacity, that are based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management.

All statements other than statements of historical fact may be forward-looking statements. Statements concerning proven and probable reserves and resource estimates may also be deemed to constitute forward-looking statements and reflect conclusions that are based on certain assumptions that the reserves and resources can be economically exploited. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe" and similar expressions) are not statements of historical fact and may be "forward-looking statements". Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements.

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These forward-looking statements involve risks and uncertainties relating to, among other things, changes in oil prices, results of exploration and development activities, uninsured risks, regulatory changes, defects in title, availability of materials and equipment, timeliness of government or other regulatory approvals, actual performance of facilities, availability of financing on reasonable terms, availability of third party service providers, equipment and processes relative to specifications and expectations and unanticipated environmental impacts on operations. Actual results may differ materially from those expressed or implied by such forward-looking statements.