

May 11, 2023

To whom it may concern:

Company Name: ENEOS Holdings, Inc.

Representative: Saito Takeshi

Representative Director, President

Code number: 5020;

TSE Prime Market/ NSE Premier Market

Contact person: Eguchi Sayuri, Group Manager,

Investor Relations Group, Investor Relations Department (Tel.: +81-3-6257-7075)

#### Notice Regarding Formulation of ENEOS Group Third Medium-Term Management Plan

ENEOS Holdings, Inc. (President: Saito Takeshi; "ENEOS Holdings") announces that it passed a resolution for its Third Medium-Term Management Plan (FY2023-FY2025) at its board of directors meeting today.

The business environment surrounding us has reached an unprecedented turning point. While the direction of the social scenario in 2040 envisioned in our previous Long-Term Vision remains unchanged, changes toward a decarbonized and recycling-oriented society, such as the Japanese government's declaration that Japan will realize carbon neutrality by 2050, are further accelerating. Amid such world trends, we recognize the key theme is how to resolve the issues of energy transition.

Under these circumstances, in order for the ENEOS Group to continue to be a company that is needed by society in future years, we have established a new Long-Term Vision in which we will take on the challenge of achieving both a stable supply of energy and materials and the realization of a carbon-neutral society. This Long-Term Vision expresses our resolution to contribute to the realization of a carbon-neutral society and aim for maximizing our corporate value by fulfilling our present responsibility—providing a stable supply of energy and materials—and continue to fulfill this responsibility in the future through the transition.

As we take on this difficult challenge, the ENEOS Group has set "supporting 'today's normal,' taking the lead for 'tomorrow's normal" as our new commitment to realizing the ENEOS Group Philosophy and positioned the Third Medium-Term Management Plan as the key period which will determine the success or failure of the transition toward the Long-Term Vision.

In order to earn even greater trust from our stakeholders, the ENEOS Group, as a leading company creating tomorrow's normal, practices management with sufficient awareness of capital cost and capital efficiency.

#### 1. Basic Policy of the Third Medium-Term Management Plan

#### (1) Strengthening the solid earnings base

By executing internal business process re-engineering with "autonomy" as a keyword, the ENEOS Group will realize better profit and asset efficiency without exception, thereby aiming to improve profits by a cumulative total of 100 billion yen during the period of the Third Medium-Term Management Plan. Furthermore, the ENEOS Group will generate a stable cash flow through reduction of refinery trouble and enhancement/expansion of growth businesses, and reallocate for the realization of energy transition as shown below (2).

#### (2) Accelerating measures for the realization of energy transition

The ENEOS Group will multilaterally develop business areas where we have strengths, such as renewable energy, SAF, synthetic fuel, hydrogen CCS, forest absorption and recycling, and we aim to establish strategic advantages while being highly resilient to multiple possible future scenarios at present. In addition to necessary investments, we will work to create and strengthen values that do not appear on the balance sheet, such as human resources and technology, and make them into sources generating significant corporate value in the flowering phase.

#### (3) Enhancing the management base

The ENEOS Group will place greater emphasis on capital efficiency than ever before and implement portfolio management using ROIC as an indicator. To achieve this, it will change to a new group management structure that enables the managing businesses according to the characteristics of each business, and by strengthening the driving force for promoting human resources and digital strategies, we will develop human resources and infrastructure that can lead a dynamic transition in each business area.

Additionally, ENEOS Holdings has decided to start preparation for listing of JX Nippon Mining & Metals, its wholly owned subsidiary, as a measure for strengthening the management base, which is one of the basic policies of the Third Medium-Term Management Plan. For details, please refer to "Commencement of Preparations for Listing of Shares of JX Nippon Mining & Metals Corporation on the Tokyo Stock Exchange" released on May 11, 2023.

#### 2. Management Indicators

(1) ROIC (excl. incubation businesses¹)
 : 7 % or higher in FY2025
 (2) ROE²
 : 10% or higher in FY2025

(3) Net Income (excl. inventory valuation)<sup>2</sup> : ¥700.0bn (Cumulative total for FY2023-FY2025)
 (4) Free Cash Flow : ¥500.0bn (Cumulative total for FY2023-FY2025)
 (5) Net D/E Ratio : 0.8 × or lower (incl. hybrid bonds on a total asset basis)

1 Businesses not suitable for evaluation at present since they are currently in the demonstration stage (hydrogen, synthetic fuels, etc.)

2 Net income attributable to owners of the parent excluding inventory valuation effects

#### (Reference) Key factors

	FY2023	FY2024	FY2025
Exchange Rate (¥/\$)	130	130	130
Crude Oil (Dubai) (\$/B)	80	80	80
Copper Price (LME) (¢/lb)	360	360	360
LNG (JKM, \$/MMBTU)	20	20	20

3. Investment plan (cumulative total for FY2023-FY2025): \(\frac{\pmathbf{\frac{4}}}{1,680.0}\) billion (including strategic investment: \(\frac{\pmathbf{\frac{4}}}{1,070.0}\) billion)

#### 4. Shareholder Return Policy

#### (1) Basic Policy

Secure sufficient financial soundness and liquidity to withstand resource price volatility and other business risks and enable procurement of capital for sustained investment in growth.

Based on the above, utilize constant financing to maintain an optimal capital structure and capital costs.

#### (2) Return Policy

Returning profits to shareholders continues to be an important management issue.

With the basic policy of implementing returns reflecting medium-term consolidated performance and forecasts, strive to continue to provide stable dividends.

(3) Indication of shareholder return in Medium-Term Management Plan

On average over the three-year period, 50% or more of net income, excluding the impact of inventory valuation effects, will be returned through dividends and share buybacks.

In consideration of the continuation of stable dividends, we will set a minimum dividend of 22 yen per share.

Note: Plans, forecasts, strategies and other non-historical facts contained in these materials are forward-looking statements based on information available at the time of preparation and are subject to various risks and uncertainties. Actual figures and indicators related to business performance and management may differ significantly from these forecasts due to changes in the business environment and other factors.

In addition, information related to companies other than our company and our group that is described in this document has been derived from public information and other third parties, and we do not guarantee the accuracy of this information.



5020

May 11, 2023



**ENEOS Group** 

FY2023 - FY2025

# Third Medium-Term Management Plan



# **ENEOS** Group Philosophy

### **Mission**

Harnessing the Earth's power for the common good and for the day-to-day life of each individual, we will contribute to the development of our communities and help to ensure a vibrant future through creation and innovation in energy, resources, and materials.

### **Our Five Core Values**

### As a member of the community

### **High ethical standards**

Based on our core principles of integrity and fairness, we conduct all of our business activities in accordance with our high ethical standards.

### Health, safety, and environment

We give the highest priority to health, safety and environmental initiatives, which are vital to the well-being of all living things.

### Supporting day-to-day life

### **Focus on customers**

We strive to meet the expectations and evolving needs of our valued customers and of society as a whole through the stable provision of products and services while creating new value as only we can.

#### For a vibrant future

### Taking on challenges

Taking changes in stride, we rise to the challenge of creating new value while seeking innovative solutions for today and tomorrow.

### **Moving forward**

Looking to the future, we continue to grow, both as individuals and as a company, through the personal and professional development of each and every employee.

- 0. Commitment to Realizing the Group Philosophy
- 1. Positioning of Long-Term Vision and Third Medium-Term Management Plan
- 2. Third Medium-Term Management Plan
  - (1) Review of Second Medium-Term Management Plan
  - (2) Change in Group Management Structure
  - (3) Basic Policy of Third Medium-Term Management Plan
  - (4) Financial Targets and Non-Financial Targets
  - (5) Investment Plan
  - (6) Shareholder Returns
- 3. Third Medium-Term Management Plan
  - Priority measures based on the Basic Policy -
- 4. Carbon Neutrality Plan (excerpt)

### **Commitment to Realizing the Group Philosophy**

# Supporting "today's normal," taking the lead for "tomorrow's normal"

We continue to support everyday life with tireless efforts and strong leadership.

We take action for positive change and continue to take on challenges, while pursuing every possible combination of the strengths of diverse people, technologies, and ideas.

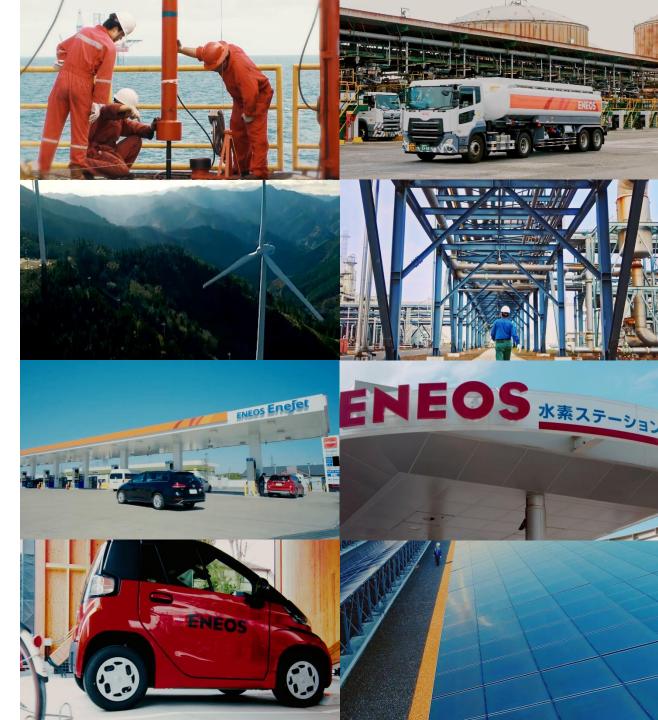
"Today's normal" in our day-to-day lives—its presence is anything but ordinary.

From the time when "today's normal" life was not ordinary, the ENEOS Group has always been a frontrunner, committed to developing and supplying energy and materials essential to the everyday life of each age.

Now, we aim to achieve "tomorrow's normal," a decarbonized, recyclingoriented society, where next-generation energy, materials and services are essential.

We will continue to take the lead in creating and innovating "tomorrow's normal" to be a corporate group that is trusted by and indispensable to society.

# **ENEOS** Group





Positioning of Long-Term Vision and Third Medium-Term Management Plan

# Society Scenario: Development of "tomorrow's normal" by 2040

### Changes in the business environment since the formulation of the Second Medium-Term Management Plan

- Fluctuations in energy security
- Formation of social consensus toward carbon neutrality

EVs · car sharing

■ Further progress in digital transformation



No changes in major direction.

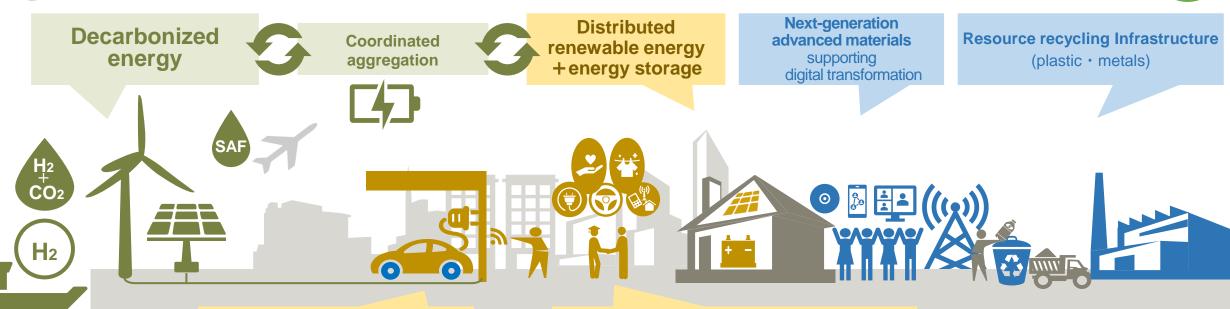
The speed of change is accelerating.

Must take on challenge of the energy transition.



### Decarbonized and recycling-oriented society, "tomorrow's normal"





Various services providers help people enjoy a

more comfortable life

4. Carbon Neutrality Plan

### **ENEOS Group Long-Term Vision**

The ENEOS group is taking on the challenge of achieving both a stable supply of energy and materials and the realization of a carbon-neutral society

While fulfilling our responsibility of providing a stable supply of energy and materials both now and in the future, we will realize a carbon neutral society through energy transition.

This is also a great challenge for mankind, and we, the ENEOS Group, will maximize our corporate value by steadily taking on the challenge.

main source is uncertain

# Long-Term Vision - ENEOS' Role in Japan's Energy Transition



- ✓ Society is certain to move toward carbon neutrality based on scientific verification and international trends
- ✓ Meanwhile, leading roles in carbon neutrality and the timing of necessary technological breakthroughs are uncertain

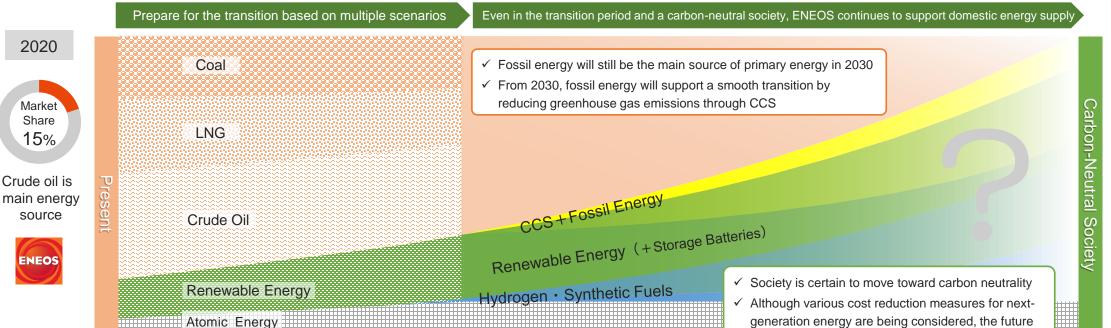
✓ Considering policy trends, the turning point will be around 2030

Social issues

- ✓ Smooth transition toward a carbon neutral society while fulfilling S + 3E\*
- \* <u>Safety</u>, <u>Energy</u> security, <u>Economic efficiency</u>, <u>Environment</u>

ENEOS will lead Japan's energy transition and will continue to be a main player, supplying 20% of Japan's primary energy (largest market share in SAF, hydrogen and synthetic fuels)

- Future domestic primary energy supply mix (image) -



2050

Market Share 20% or more

- Renewable energy
- CCS + fossil fuels
- SAF/Biofuels
- Hydrogen
- Synthetic fuels, etc.



**ENEOS** Holdings, Inc.

2030 (Government assumption)

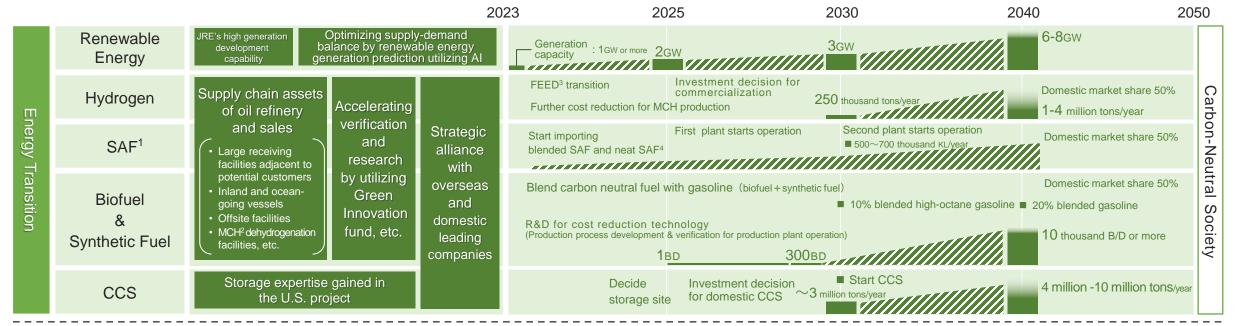
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# Long-Term Vision - Strengths for Tomorrow's Normal

- ✓ ENEOS has various strengths in main next-generation energies for a carbon-neutral society, and we are taking preemptive measures as a pioneer
- ✓ Furthermore, we possess product lines in core materials for the digital society, advanced recycling technology, and infrastructure / business network support development for a sharing economy

✓ High resilience in dealing with various scenarios and large profit-earning potential from 2030 (growth opportunities)



#### Materials (Advancement of digitization and recycling) ENEOS platform (Advancement in EV and car sharing) **High Performance Materials Advanced Materials EV Charging** Fleet Management (ENEOS Materials) (JX Nippon Mining & Metals) One of the world's High product development High purification and recycling Strong regionally-rooted Nation-wide vehicle Top-share product lineup Deployed route charging service<sup>6</sup> top shares in fuel-efficient and production capability technology cultivated in (Core materials for data society) nationwide SS network Also, more than 6,000 ordinary chargers in Japan maintenance network lineral Resources and Smelting businesse responding to customer needs

**ENEOS** Holdings, Inc.

1 <u>Sustainable Aviation Fuel</u> 2 Methylcyclohexane: a hydrogen carrier 3 Front End Engineering Design 4 SAF raw materials before mixing 5 Solution polymerization styrene-butadiene rubber 6 ENEOS Charge Plus

# Positioning of Long-Term Vision and Third Medium-Term Management Plan





4th

Mid-Term

Mgmt.

Plan

Establishing a solid earnings base

3rd

Mid-Term

Mgmt.

Plan

2023

2nd

Mid-Term

Mgmt.

Plan

2026

2030



### Tomorrow's normal



> The key to success for the transition = Thorough preparation and development during the period of 3rd / 4th Mid-Term Mgmt. Plan

By executing preemptive measures while utilizing our strengths,

establish strategic advantages

Build a mechanism, strengthen the structure, etc.

**►** Expand investment toward flowering phase

Corporate
value Improve
P B R

### **Basic policy for the Third Medium-Term Management Plan**

- Establish a solid earnings base → Reduction of refinery trouble, business process re-engineering, etc.
- ✓ Accelerate execution of measures for transition
- ✓ Enhance the management base
  - → Preparation for the listing of JX Metals and conversion of 3 businesses in energy sector into separated companies



**Today's normal** 

3rd Mid-Term Mgmt. Plan







(¥Trillion)

 $2026 \rightarrow 2030$ 

 $2030 \to 2040$ 

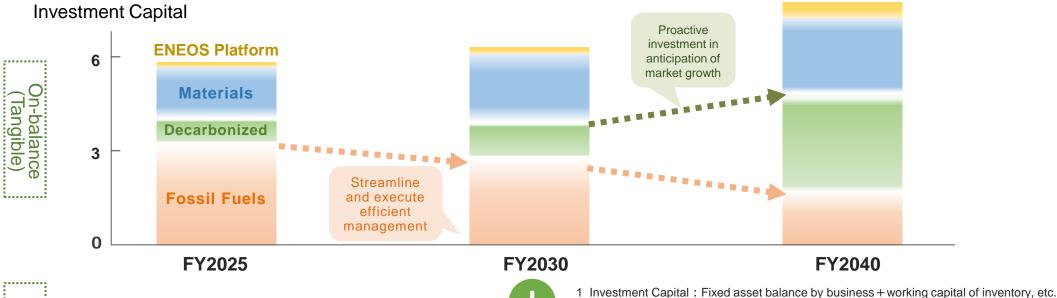
(Flowering phase)



omorrow'

Norma







**Human resources** creating tomorrow



**Technology** development



Alliance with



Utilization of support system



### Pioneer Advantage

omorrow'

B

9

# Long-Term Vision

## -ROIC / Scale of Profits by Business Area

3rd Mid- Term Mgmt. Plan

 $2023 \to 2025$ 

 $2026 \rightarrow 2030$ 

 $2030 \rightarrow 2040$ 

(Flowering phase)



### **Acceleration of Energy Transition**

### **Evolution of Energy Transition**

· ENEOS Platform: EV charging, mobility

Establishing a solid earnings base

Prior investment for renewable energy shift and decarbonized sector

**Growth of Materials business** 

Building a business foundation by making lifestyle support tailored to local communities and individuals

(Preparation and development phase)

Profit contribution from decarbonized sector

Fossil fuels: Crude oil refining and sales, petrochemicals, lubricants, electricity, gas, E&P
 Decarbonized: Renewable energy, biofuels, SAF, hydrogen, synthetic fuels, CCS

· Materials: High performance materials, metals (JX Nippon Mining and Metals wholly-owned subsidiary basis)

Sustainable growth and expansion of next-generation advanced materials

Contribution to solving social issues through ENEOS Platform

Ideal business portfolio **Expand investment effects** Maximization of profits **ENEOS Platform ENEOS Platform Fossil Fuels** Materials **Materials FY2040** Materials FY2030 FY2025 Fossil ROIC FY2022 **ROIC ROIC Fuels ROIC Fossil** Fossil **7**% 6% 6%<sup>1</sup> **Fuels Fuels** Net income<sup>2</sup> Net income<sup>2</sup> Net income Net income ¥96.6bn ¥310bn ¥400bn ¥600bn Electricity **Materials** Electricity Decarbonized **Decarbonized Electricity** 



Today's Normal

Ratio of overseas business 50% (ENEOS 20%)

50% (20%) 45% (20%)

45% (25%)

Generating returns in excess of capital cost by contributing to the resolution of social issues

1 Including incubation businesses. The target for FY2025 is 7% or higher excluding the incubation businesses (please refer to pg.17) 2 Net Income attributable to owners of the parent

# Third Medium-Term Management Plan

# Review of Second Medium-Term Management Plan 1

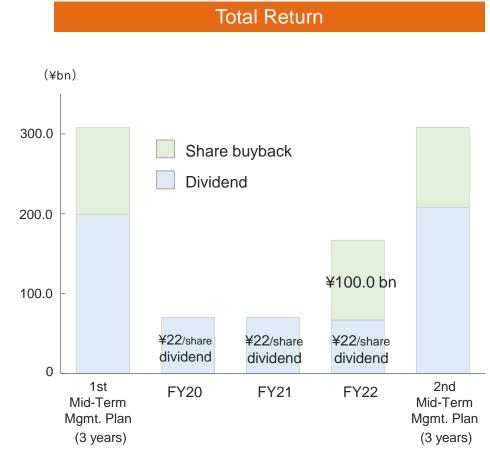
Financial targets Did not reach targets other than net D/E ratio due to reduced sales caused by COVID-19, the impact of refinery troubles, etc.

Shareholder returns Achieved 3-year cumulative total of 50% or more excluding inventory valuation effects through dividend and share-buybacks

Issues and achievements Although structural reform of base businesses progressed, there are issues with the earnings capability of base businesses (frequent occurrence of refinery troubles, etc.)

**■ Next Page** On the other hand, replacement of the business portfolio (M&A, asset sales) has produced a certain degree of results. Enhancing the management base by developing various ESG-related measures such as formulating the Carbon Neutrality Plan, etc.

	Target	Results	Evaluation
Operating income cumulative total for FY2020 to 2022	970.0 billion yen	877.6 billion yen	Although the impact of reduced sales mainly caused by COVID-19 was covered by rising resource prices and the weak yen, failed to achieve target due to refinery trouble  * Impact of rising resource prices and weak yen, etc. +¥650.0bn  • Decrease in volume due mainly to COVID-19 -¥390.0bn  • Impact of refinery trouble -¥140.0bn  • Rising electricity prices and slump of petrochemicals -¥210.0bn
F C F cumulative total for FY2020 to 2022	150.0 billion yen	-231.7 billion Yen	Failed to achieve the target due mainly to a rise in resource prices, the weak yen, and temporary tax payments (¥560.0bn)  ⇒Improvement of CF through additional asset sales and careful selection of capital investment
Net D/E ratio (the end of FY2022)	0.8× or lower	0.76×	-Capital increase greater than planned due to gain from impact of inventory valuation effects -Meanwhile, this was almost on target due to the significant impact of the increase in interest-bearing debt resulting from the increase in operating funds Note: After adjustment for hybrid bonds
R O E (FY2022)	10% or higher	5% (FY2022)	× Failed to achieve the target (Achieved for 3-year average including inventory valuation effects (10%))



# (1) Review of Second Medium-Term Management Plan 2



#### Strengthening the competitiveness of base businesses

### Develop & strengthen growth businesses



- Reconstruction of production system (Osaka / Chita / Chiba / Negishi / Wakayama)
- Start of business process re-engineering (BPR)
- Acquisition of growth businesses (elastomers / renewable energy)
- Implementation of verification of hydrogen supply chain

### Oil & Natural Gas E&P

> Extension of interest in Tangguh LNG Project

- Sale of the U.K. business, withdrawal from Myanmar business
- > Acquisition of Japan Drilling Co., Ltd

## Metals

- Partial sale of interest in Caserones, sale of LS Nikko shares
- > Reorganization of copper smelting business operations
- Expansion of recycled materials processing capacity
- Enhancement of production capacity of semiconductor materials and ICT materials
- > Promotion of commercialization of crystalline materials and LIB recycling

### Energy

- Decrease in CDU utilization rate due to refinery troubles
- > Building cost structure according to reduced demand
- Deterioration of profits in Petrochemicals and Electric Power businesses
- Promotion of measures for green chemicals<sup>1</sup>
- Creation of business models for new businesses

### Oil & Natural Gas E&P

- Delay of commencement of production by Tangguh LNG Train 3 Project
- (Interruption of business due to trouble on the power generation side (=CO2 emission source))

Metals

- Failure of Caserones production volume to reach the target due to COVID-19 and strike
- Completion of capacity expansion work for

- - 1 Petrochemical products made from bio materials and recycled materials

# Continuation of business of U.S. CO<sub>2</sub>-EOR Project

### semiconductor / ICT materials

- E
  - Update carbon neutral plan to the global standard

Enhancing the management base

- Strengthening of disclosure in line with TCFD recommendations
- Conducted a global standard risk assessment for water and biodiversity



- Maintained stable supply system during COVID-19
- Introduce international human rights compliance system including supply chain



- Speed up decision-making in business execution
- Separation of Chairman of the Board and execution of businesses
- · Taking NIPPO private
- Reduction of cross-shareholdings
- · Improvement of fairness and objectivity of executive selection process
- Introduction of a disciplinary system for executives (Introduction of clawback and malus clause)

### Third Medium-Term Management Plan

Acquiring new businesses through large-scale acquisitions and transition to a group management structure aiming for autonomous management according to the characteristics of each business

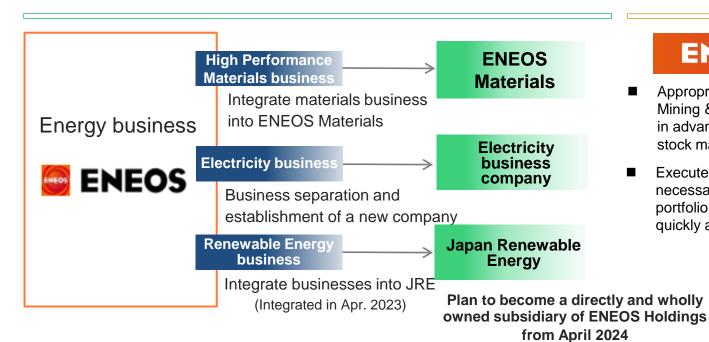
The ENEOS Group will start preparing for conversion of its High Performance Materials business, Electricity business and Renewable Energy business into separate companies and listing of JX Nippon Mining & Metals in order to enhance competitiveness in each industry and realize autonomous management based on the characteristics of each business

# Convert High Performance Materials business, Electricity business and Renewable Energy business into separate companies

As key operating companies in the ENEOS Group, we aim to make results more visible and transition to an autonomous management system in pursuit of growth strategies and capital efficiency.

### **Listing of JX Nippon Mining & Metals**

Start preparing for listing of JX Nippon Mining & Metals, ENEOS Holdings' wholly owned subsidiary, in order to further increase corporate value of both companies. Aiming to transition JX Nippon Mining & Metals into an equity-method affiliate in the future in order to establish an autonomous management structure.



### **ENEOS** Holdings

- Appropriately promote JX Nippon Mining & Metals' high growth potential in advanced materials industry to stock market
- Execute strategic investment, which is necessary to transform business portfolio, and shareholder returns quickly and reliably



### **JX Nippon Mining & Metals**

- Establish a management structure which enables the company's rapid decisionmaking based on business characteristics
- Execute each strategy targeting semiconductor materials and ICT materials, which are areas in which the company is highly competitive, through realization of optimal capital structure

Aiming for a sustainable increase in corporate value of both companies

# (3) Basic Policy of Third Medium-Term Management Plan

### For energy transition, reallocating cash

### 1 Establishment of a solid earnings base

Enhance profitability through business process re-engineering, etc. with "autonomy" as a keyword

Improvement of refinery operations

Business process re-engineering

Strengthening and expansion of growth businesses

✓ Realization of stable operation by deploying resources

✓ Execute reform without exceptions for ¥100bn (3-year cumulative total) profit improvement

Early expansion of profits from elastomers, advanced materials, etc.

**Maximization of value** 

Oil & Natural

**Metals** 

✓ Indonesia Tangguh Train 3 expansion project

Malaysia Block SK10 Helang Gas Field additional development project

Steadily execute for growth businesses

- Strengthen production capacity by launching a new plant in Hitachinaka
- √ Strengthen stable supply structure by launching a new plant in North America

### 2 Acceleration for realization of energy transition

Speedily promote development of renewable energy business and initiatives for hydrogen and SAF

#### Renewable energy

Expanding mainly through solar and wind power

#### Hydrogen

Start full-scale construction for building hydrogen supply chain

#### SAF

Considering starting operation of first plant (Start in FY2026)

#### **Domestic CCS**

Start investigation with J-POWER, planning to start CO<sub>2</sub> injection in 2030

#### Low-carbon high-octane gasoline

Start supply to some regions from around 2027

#### **Forest absorption**

Participation in domestic and overseas projects

#### Overseas CCS / CCUS

Further accumulation of knowledge on CCS / CCUS through US project, promote and select projects

### Improvement in recycling percentage

Advancement of green hybrid smelting

#### Formation of external partnerships

Advancement of product and scrap collection, reuse of raw materials and joint technology development

### Strong structure to create "tomorrow's normal"

**3 Strengthen the management base** 

Portfolio management using ROIC as an indicator

#### Change in group operating structure

- √ Conversion of 3 businesses in ENEOS into separate companies
- √ Preparation for listing of JX Nippon Mining & Metals

### HR strategy

- ✓ Personnel portfolio transformation (Attracting diverse workforce, reskilling)
- Strengthen base businesses through transfer of skills and experience, and skill development

## Strengthening the driving force for DX promotion

- ✓ Developing digital personnel
- ✓ Data utilization
- √IT governance
- √ Co-creation opportunities

**ENEOS** Holdings, Inc.

# (4) Financial Targets and Non-financial Targets

ROIC	<b>7%</b> or higher in FY2025 (Excluding incubation businesses <sup>1</sup> )
ROE <sup>2</sup>	10% or higher in FY2025
Net Income <sup>2</sup>	(Cumulative total for FY2023 - FY2025) <b>¥700.0bn</b> FY2023 : ¥180.0bn  FY2024 : ¥210.0bn  FY2025 : ¥310.0bn
Free Cash Flow  After payment of lease liabilities	(Cumulative total for FY2023 - FY2025) ¥500.0bn
Net D/E ratio Including hybrid bonds on a total asset basis	about 0.8× or less

<sup>1</sup> Businesses not suitable for evaluation at present since they are currently in the demonstration stage (hydrogen, synthetic fuels, etc.)

<sup>2</sup> Net income attributable to owners of the parent excluding inventory valuation effects

Key fa	ctors	FY2023	FY2024	FY2025
Exchange Rate	(¥/\$)	130	130	130
Crude Oil (Dubai)	(\$/B)	80	80	80
Copper Price (LME)	(¢/lb)	360	360	360
LNG (JKM)	(\$/MMBTU)	20	20	20

### **■** Enhancement of governance

#### ■ Achieving both speedy autonomous management and monitoring

- · Change of structure aimed at autonomous management according to business characteristics
- · Maintaining investment discipline while emphasizing cash flow
- Portfolio management using ROIC as an indicator for the realization of a portfolio with high capital efficiency

#### ☐ Improvement of transparency of corporate governance

- Further information provision to outside directors (HRDD, enhancing communication with outside directors and management personnel, etc.)
- · Creation of opportunities for dialogue between investors and outside directors

### ■ Reduction of greenhouse gas emissions

	2025	Compared to 2013 14% reduction
Reduction of ENEOS' emissions	2030	Compared to 2013 Net emissions 46% reduction 18.5 million tons or less
	2040	Realization of carbon neutrality
	2025	Cl <sup>3</sup> 86g-CO <sub>2</sub> /MJ or less
Contribution to the reduction of	2030	Start of social implementation of CO <sub>2</sub> -free hydrogen and SAF production  CI 80g-CO <sub>2</sub> /MJ or less
society's emissions	2040	Expansion of supply of hydrogen, SAF, synthetic fuel, and Renewable energy  Cl 44g-CO <sub>2</sub> /MJ or less
	2050	Realization of carbon neutrality

<sup>3</sup> Carbon Intensity: Indicator of CO2 emissions (g) per energy supply amount (MJ)

### ■ HR strategy supporting the realization of management strategy

Setting quantitative targets according to characteristics of each operating company (Targets set in ENEOS)

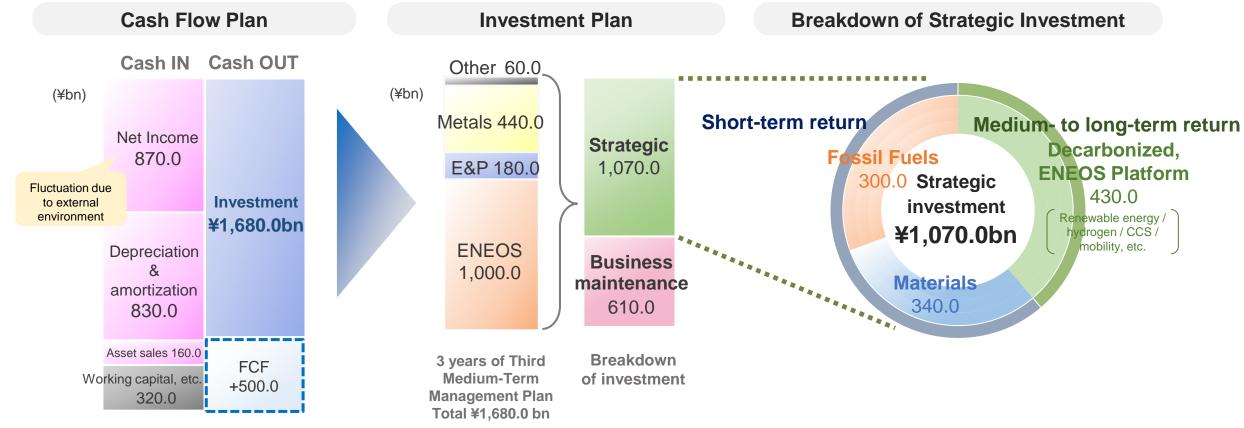
Number of managerial positions held by women	100 or more	
Number of mid-career hires in managerial positions	80 or more	
Percentage of men taking childcare leave	90% or more	

Advanced digital personnel	20% or more
Total number of people to have used the online learning support system <sup>4</sup>	1,500 or more

#### 4 ENEOS Learning Platform

## (5) Investment Plan

- Plan investment emphasizing growth strategy and cash flow
  - > Investing CF is strictly managed up to operating CF excluding working capital affected by the external environment such as resource prices and effects of non-business days
    - (Consider the investment reduction or asset sales if earning capacity (the operating CF above) declines)
- Meanwhile, invest almost half of strategic investment in new areas such as decarbonized-related businesses, etc., and seek to achieve both medium to long-term growth and short-term returns



## (6) Shareholder Returns

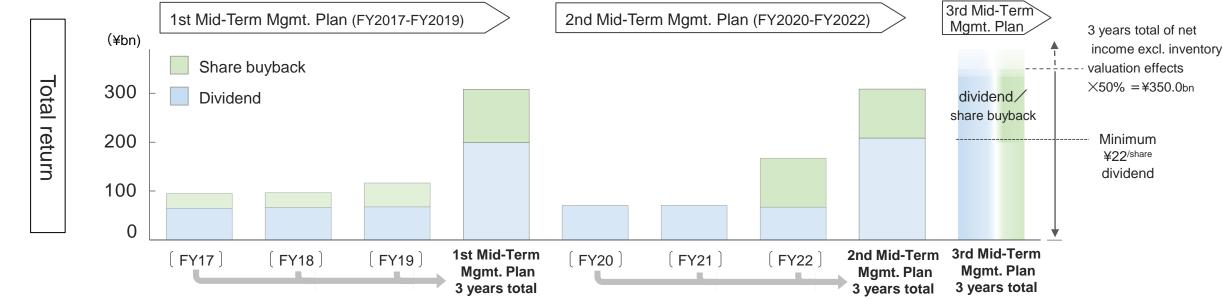
**Basic Policy** 

- Secure sufficient financial soundness and liquidity to withstand resource price volatility and other business risks and enable procurement of capital for sustained investment in growth.
- Based on the above, utilize constant financing to maintain an optimal capital structure and capital costs.

### **Return Policy**

Indication of shareholder return in Medium-Term Management Plan

- Returning profits to shareholders continues to be an important management issue.
- With the basic policy of implementing returns reflecting medium-term consolidated performance and forecasts, strive to continue to provide stable dividends.
- On average over the three-year period, 50% or more of net income, excluding the impact of inventory valuation effects, will be returned through dividends and share buybacks.
- In consideration of the continuation of stable dividends, we will set a minimum dividend of 22 yen per share.





Third Medium-Term Management Plan

— Priority measures based on the Basic Policy—

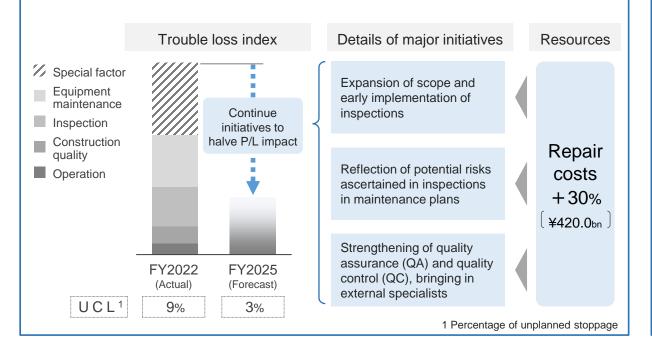
# (1) Establishment of Solid Earnings Base (Energy business)

✓ Speedily implement measures to reduce refinery trouble and measures for fundamental earnings improvement, cost reduction, and enhancement of asset efficiency through business process re-engineering

1. Long-Term Vision

### Measures to reduce refinery trouble

- ✓ Seek to reduce risk by bringing inspections forward, and achieve more stable operation by injecting resources into enhancement of precision of maintenance plans and improvement of construction quality
- To implement measures, repair costs in the 3rd Mid-Term Mgmt. Plan are planned to increase 30% (+¥420.0bn) from the 2nd Mid-Term Mgmt. Plan



### Business process re-engineering (BPR)

- ✓ Generation of funding for energy transition through thorough reform of existing businesses
- ✓ Improvement of asset efficiency through redefinition of significance of holding assets
- ✓ Improvement of profits by around ¥100.0bn over the three years of the 3rd Mid-Term Management Plan
- ✓ In the future, realize profit improvement of ¥100.0bn per year

# Measures to improve profits / asset efficiency without exceptions

- Reorganization of entire Group's business, sale of unnecessary assets
- Reorganization of supply chain based on future industry structure
- Review of sales portfolio through enhancement of profit management
- Thorough reduction and improvement of efficiency of operations

#### Powerfully implement program through cross-organizational system

### President and Vice President





- Formation of over 50 WGs² directly under the President
- Establish special organization (BPR Division) to support and boost WGs

2 Working Groups

4. Carbon Neutrality Plan

# (1) Establishment of Solid Earnings Base (Oil & Natural Gas E&P business)

✓ Pursue safe, stable and efficient business operation and seek maximization of value of conventional Oil & Natural Gas E&P business as a base business for securing and expanding management resources

#### Maximization of value of Oil & Natural Gas E&P business

### Indonesia Tangguh Train 3 Expansion Project

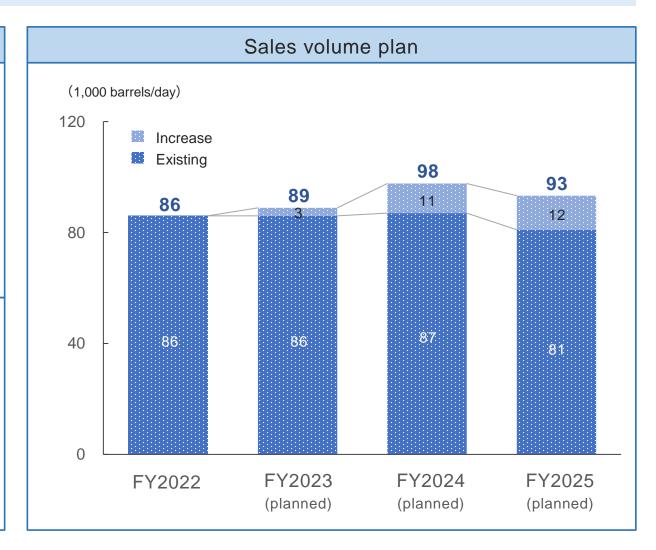
- ✓ Project for train expansion enabling early production of undeveloped gas fields that have already been discovered.
- Large and long-term contribution to future cash flow

Interest held	12.2%
Start of production	FY2023 Q3 (scheduled)
Contribution to sales volume	8,000 boed (FY2024 forecast)

#### Malaysia Block SK10 Helang Gas Field Additional Development Project

- ✓ Additional development project in the block using existing production facilities
- ✓ Contribute to generation of cash flow in the 3rd Mid-Term Management Plan

Interest held	75% (ENEOS is operator)
Start of production	FY2024 Q3 (scheduled)
Contribution to sales volume	3,000 boed (FY2025 forecast)



✓ Steadily execute growth investment, and steadily capture growing demand for semiconductor materials and ICT materials

1. Long-Term Vision

### Pursuit of growth of semiconductor materials and ICT materials

#### Enhancement of capacity through launch of new plant in Hitachinaka

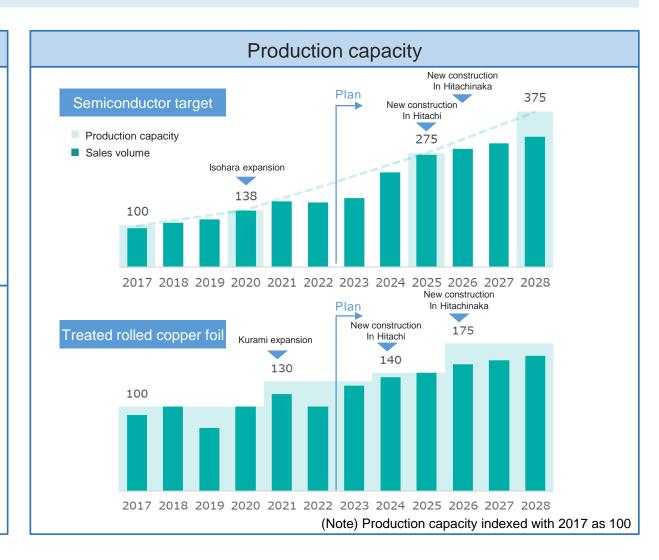
✓ As demand for advanced materials is expected to expand in the future, a new plant will be built in Ibaraki Prefecture, which is a strategic site for metals with consideration of room for expansion for the launch of new business due to limitations on space in existing plants.

FY2025	Start operation of each process (Scheduled)
FY2026	Start of operations (Scheduled)

#### Increase of production through launch of new plant in North America

A new plant will be built in Arizona, USA, to build a stable supply system and maintain a high share in the semiconductor materials market in response to growing demand for semiconductor targets, the importance of BCP in that product area and customers' requirements, in addition to operating new businesses including products in other businesses.

FY2024	Start operation for sputtering target process (Scheduled)
FY2026	Start operations for other strategic products process (Scheduled)



# (2) Initiatives for the Realization of Energy Transition

Policy for efforts for the realization of carbon neutrality

### **ENEOS Measures**

Main measures in the **Third Medium-Term Management Plan** 

Reduction of our greenhouse gas emissions (Scope 1+2)

**Curbing greenhouse** gas emissions



Appropriate treatment of crude oil (according to demand)

- Efficiency improvement of manufacturing and businesses (energy conservation, fuel switching, utilization of renewable energy, etc.)
- Utilization of carbon credit

Artificial fixation of CO<sub>2</sub>



- CCS (carbon dioxide capture and storage)
- New methods such as BECCS<sup>1</sup> and DACCS<sup>2</sup> utilizing CCS



Increase of natural absorption of CO<sub>2</sub>



- Absorption by forests (afforestation, forest management, etc.)
- Other natural absorption methods (blue carbon, soil carbon fixation, etc.)

Contribution to the society's greenhouse

Contribution to emission reduction in the energy area



Pursuit of energy transition (hydrogen, carbon-neutral fuels3, renewable energy, etc.)

reduction of gas emissions (Scope 3, avoided emissions)

Contribution to emission reduction in the materials and services area

- Pursuit of circular economy (recycling, sharing, etc.)
- Expansion of supply of products contributing to avoided emissions

Renewable energy

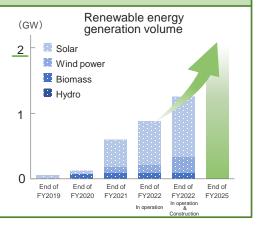
- Develop 2GW with solar and onshore wind power
- Promote offshore wind power business
- SAF
- Engage in early creation of import system in addition to continuing consideration aimed at the start of operation of the first SAF plant in 2026
- Low-carbon high-octane gasoline
- Carbon-neutral fuel: Consideration of expansion of introduction with a view to 10% blend
- Synthetic fuel production: Continue technology development verification utilizing GI funds
- > Hydrogen
- Start construction of facilities from FY2025 to build hydrogen supply chain by 2030
- > CCS
  - Continue domestic CCS business investigation with a target of starting CO<sub>2</sub> injection in 2030
- Forest absorption
- Early acquisition of forest management and credit trading expertise through participation in carbon credit creation projects in Japan and overseas
- **Recycling (Metals)**
- Implement initiatives for achievement of 25% recycled material percentage in 2028

# Acceleration of Initiatives for the Realization of Energy Transition (Energy business)

Pursue initiatives to start supply of renewable energy, hydrogen, biofuels and synthetic fuels, which are main energy candidates for a carbon-neutral society, to society while utilizing support system and strategic partnership

### Renewable energy and VPP

- > Fully utilize the human resources of JRE to develop 2GW centered on solar and onshore wind power
- Promote offshore wind power business
- > Build a VPP business system monitoring and controlling resources such as distributed renewable energy, energy storage and EVs comprehensively



### SAF

Creation of in-house manufacturing system (Targeting 50% share in Japan)

First plant: 400 thousand KL/year, planning to start operation in 2026

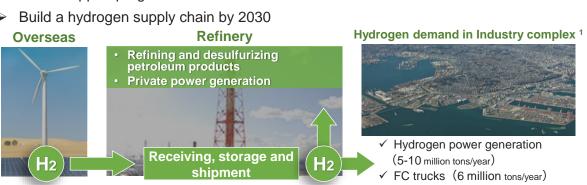
Considering second plant (Start operation around 2030)

Early creation of import system

~2025	~2030	2030~
Creation of SAF import system	Creation of in-house manufacturing system	Expansion and evolution of supply system (Also with a view to making raw materials inedible and supplying synthetic fuels)

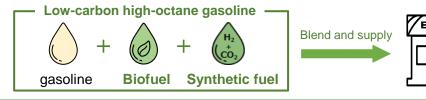
### Hydrogen

- Utilize support programs such as GI funds to start construction of facilities in FY2025



### Low-carbon high-octane gasoline

- > Renew current high-octane gasoline to low-carbon high-octane gasoline (blending biofuels and synthetic fuels)
- > Start supply to some regions from around 2027 and then expand
- > Aim to establish manufacturing system for synthetic fuels through in-house technology utilizing GI funds, etc. in parallel



✓ Thermal demand, chemicals industry

## (2) Acceleration of Initiatives for the Realization of Energy Transition (Oil & Natural Gas E&P business)

✓ Implement initiatives aimed at acquisition of elemental technology required for strengthening and creation of CCS value chain and early implementation of CCS

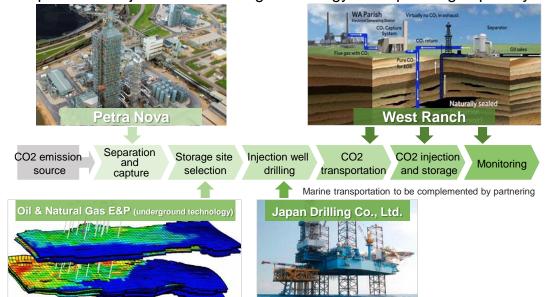
### Strengthening and creation of CCS value chain

#### Petra Nova Parish Holdings (wholly-owned US subsidiary)

- Acquisition of separation and capture technology and operating expertise through stable operation as an operator of a CO<sub>2</sub> separation and capture business
- ➤ Acquire technology for CO₂ pipeline transportation, injection, storage and monitoring through CO₂ injection and monitoring at West Ranch Oil Field

# <u>Acquisition and management integration of Japan Drilling Co., Ltd.</u> (April 2023)

Acquisition of injection well drilling technology and operating capability



### Initiatives for early implementation of CCS

#### **Domestic CCS business**

➤ Evaluate and review of CO₂ hub (aggregation site) and storage site for realization of start of injection in 2030 through West Japan Carbon dioxide Storage Survey Co., Ltd., a joint venture between ENEOS and J-POWER.

#### **Overseas CCS business**

- Consider participation in joint studies and overseas CCS projects through channels with state-run oil companies, etc.
  - Implementation of joint study aimed at formation of CCS hub & cluster with PETRONAS and JGC
  - Consideration of development technology proposal and acquisition of interest including CCS in undeveloped gas fields containing high concentrated CO<sub>2</sub> found offshore of the Malay Peninsula with PETRONAS Carigali
  - Consideration of CCUS business for reducing CO<sub>2</sub> emissions in the Tangguh LNG Project

### Creation of new environmental business centered on CCS

- Consideration and development of future technology utilizing Nakajo Openinnovation Lab (NOiL)
- Consideration and promotion of negative emission business (BECCS<sup>1</sup>, DACCS<sup>2</sup>)

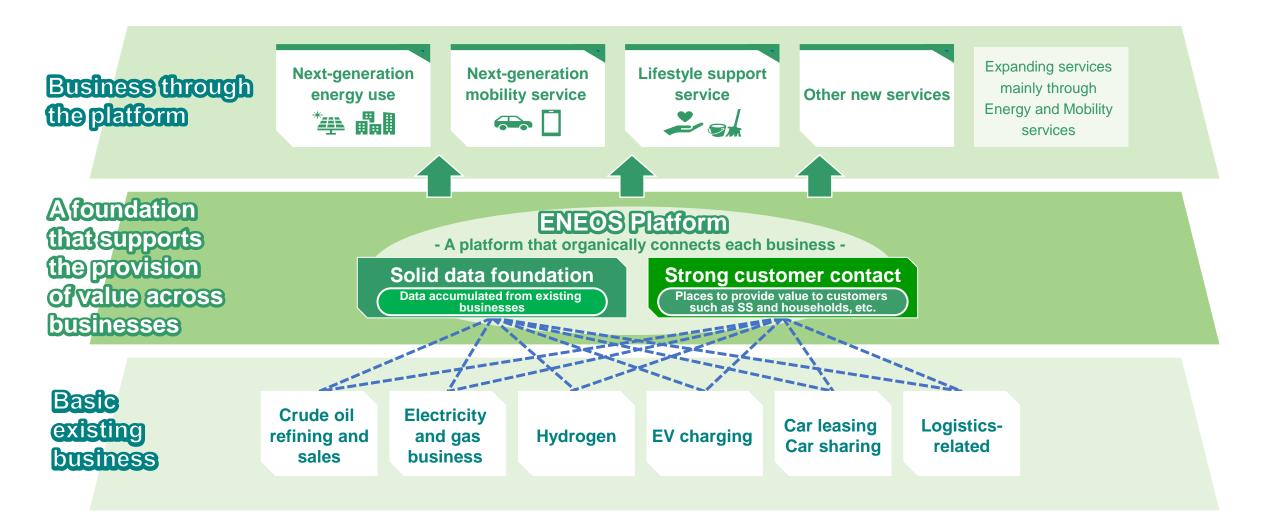
1 BECCS: Bio energy with carbon dioxide capture and storage

2 DACCS: Direct air capture with carbon dioxide capture and storage

# Acceleration of Initiatives for the Realization of Energy Transition (Energy business)

✓ In addition to existing services, create and provide new services to support customers' lifestyles through strong customer contact points such as SS network and provide new value by utilizing digital technology

1. Long-Term Vision



# (2) Acceleration of Initiatives for the Realization of Energy Transition (Energy business)

#### 1 Implementation of next-generation SS and new services

- Development and verification of new services matching regional needs
  - ▶ Launch and expansion of next-generation SS trial stores
- Development of services through collaboration and partnership with other companies
  - ▶ Development and verification of new services

### 2 Strengthening ties with households and communities

- Rollout of new menu for ENEOS Denki<sup>1</sup> meeting customer needs
  - ① Time band-based pricing service
  - ② Plan providing electricity derived from renewable energy: Begin roll-out in FY2024
- Promotion of contribution to circular economy linked to communities Recent initiatives: Verification of PET bottle collection in SS in Kawasaki and Utsunomiya

# Provision of new value to customers through utilization of digital technology

 Proposal of services in line with customer needs utilizing digital marketing (FY2025: completion of marketing system)

#### 1 Implementation of Mobility-related services next-generation SS and new services Car leasing . . . EV charging Micro-mobility (Including EVs) Provision of new services matching regional needs Lifestyle support-related services Logistics hub Healthcare Home services **ENEOS** 0 0 Urban Provision of convenient services to pedestrians and non-car owners Suburban Regional Provision of goods and services Provision of services responding required for community to mobility-related needs and lifestyle (vehicles, energy, etc.) Provision of new value to customers through utilization of digital technology Seamless service 2Strengthening of Households and proposals utilizing digital ties with households Communities marketing and communities Compact Provision of next-generation **VPP** Service ENEOS Denki<sup>1</sup> batteries services centered on electricity

<sup>1</sup> Denki means Electricity in Japanese

## (2) Acceleration of Initiatives for the Realization of Energy Transition (Metals business)

1 Carbon footprint: CO<sub>2</sub> emissions related to

2 Framework showing copper

established by International Copper Association

industry's responsible production and contribution to the SDGs,

the value chain

✓ Create a system for energy-saving, carbon-saving copper resource circulation with a high recycling rate through realization of the Sustainable Copper Vision

### Measures for realization of Sustainable Copper Vision

#### Reduction of CFP<sup>1</sup>

- Electrolytic copper CFP calculation by a third party
- ➤ CO₂ reduction in refineries and ore transportation

#### Improvement of recycling percentage

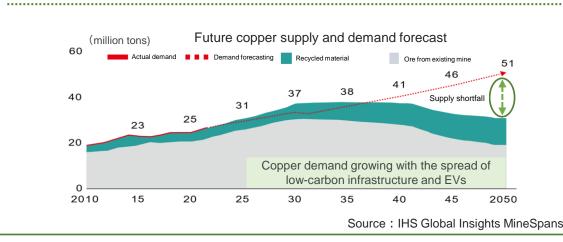
- Evolution of green hybrid smelting
- Establishment of cooperative system with recyclers

#### Promotion of responsible procurement, etc.

Acquisition of the Copper Mark<sup>2</sup> (acquired in December 2022, first for Japanese copper smelting)

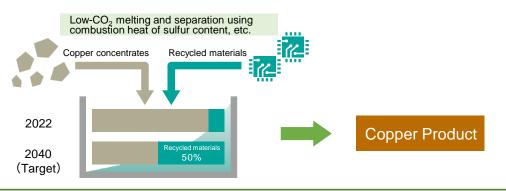
#### Formation of green enabling partnership

Economical and transparent copper resource recycling and increased scrap collection



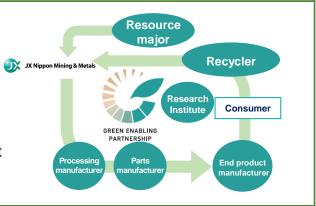
# Production and supply of sustainable copper through evolution of green hybrid smelting

Acceleration of technology development for green hybrid smelting combining copper concentrates and scrap

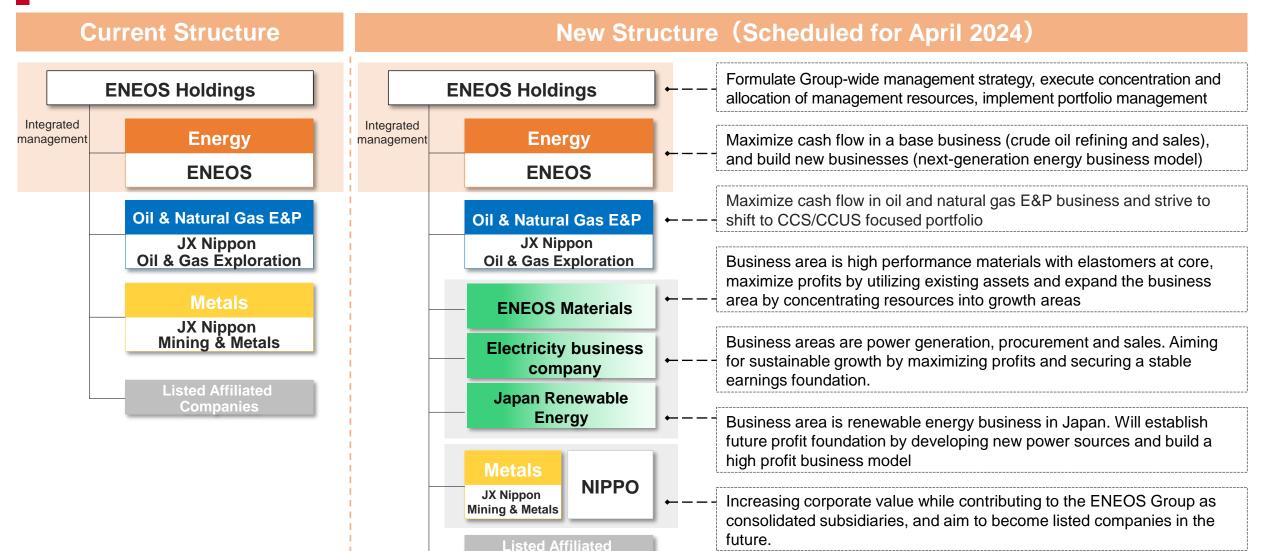


# Promoting the spread of sustainable copper through the formation of green enabling partnerships

- Formation of partnerships with companies, etc. collaborating for the spread of sustainable copper
- Promotion of product and scrap collection, reuse of raw materials and joint technology development with partners



# (3) Enhancing the Management Base(Change in Group Management Structure)



Under the holding company structure, emphasizing capital efficiency, execute portfolio management using ROIC as an indicator and initiate fundamental management improvement measures for inefficient businesses within 3 years

Companies

# (3) Enhancing the Management Base (Group Human Resource Strategy)

# Supporting "today's normal," taking the lead for "tomorrow's normal"

Improvement of

employee

engagement

Support for business portfolio transformation through personnel portfolio transformation

Acquisition of diverse personnel matching management needs

Around 40% of the university graduates hired at ENEOS are mid-career hires

- Skill development for business portfolio transformation
- Implementation of reskilling

Dispatch to venture companies, M&A project management training, etc.



New ideas and skills enable business portfolio transformation

Strengthening of base businesses through transfer of technology and experience, and skill development

• Establishment of environment enabling employees to fully exhibit their skills

Further promotion of DE&I and workstyle reform, improvement of compensation for older personnel

Support for personnel supporting base businesses

<u>Cultivate employees' stance of autonomously thinking about their careers</u>
<u>The Company provides support by providing adequate opportunities for skill development<sup>1</sup></u>



1 ENEOS Learning Platform, etc.

Build a sound earnings foundation for base businesses

New personnel system

### Role grade system

[ENEOS]

[JX Nippon Oil & Gas Exploration]

**Aim for dynamic personnel shift and promotion** by making selections regardless of age for posts set based on management strategy

\*All ENEOS managers and candidates for managerial positions declare the post they wish to attain (Post Challenge System)

**Course-based personnel system** 

[ENEOS]

[JX Nippon Mining and Metals]

Stipulate required roles and careers for each course, and carefully and speedily execute evaluation and development suited to each type of personnel

\* <u>Establish advanced specialized courses</u> in ENEOS, and <u>enable provision of compensation linked to market value</u>

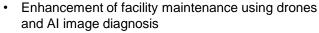
Deployment of personnel

Deployment of appropriate personnel to appropriate posts utilizing a talent management system visualizing individuality and skills

# (3) Enhancing the Management Base (Digital Strategy)

Further accelerating DX for establishment of a solid earnings base and realization of energy transition. Perform utilization of data centered on training of digital personnel, strengthening of IT governance and expansion of co-creation opportunities as driving forces required for this.

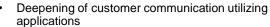
### DX of base businesses (DX Core)



- Reduction of operation and construction trouble utilizing machine learning
- Supply chain optimization through demand forecasting
- Improvement of efficiency of on-site operation through various types of digitalization

### **DX of growth businesses (DX Next)**





- Acceleration of material development and creation of innovation
- Next-generation energy management utilizing VPP sysrem

### **DX** for carbon neutrality

- Visualization and analysis of CO<sub>2</sub> emissions
- Pursuit of application of digital technology in CCS projects



Strengthening of driving force for promotion of DX



### **Development of digital personnel**

Visualize skill levels, enhance the autonomous capabilities of employees and promote the assignment of appropriate personnel to appropriate posts



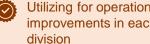
#### **Expansion of training programs**

Acquisition of digital literacy by all employees and development of advanced digital personnel<sup>1</sup> such as data scientists

Target: 2,000 personnel (20%)

**Growth through practical** experience

Priority assignment to key themes



Utilizing for operational improvements in each



#### **Data utilization**

Utilize diverse data inside and outside the company to transform into a data-driven organization

- Aggregation of data through optimization of ERP and data analysis infrastructure
- Sustained profit improvement through the utilization of data analysis tools
- Thorough utilization of customer data
- Formation of communities through sharing of insights and collaboration



### IT governance

**Create an environment for steady** promotion of DX in strategy, system, and security aspects

- Company-wide DX discussion led by management
- Strengthening of IT management capability through IT cost visualization, etc.
- Ongoing strengthening of security incorporating the zero trust concept



### Co-creation opportunities

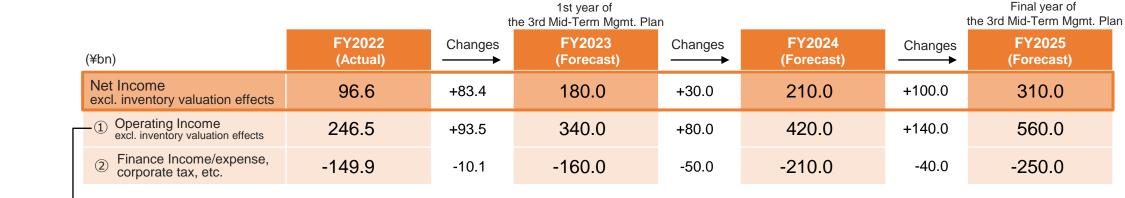
**Enhance technology and** experience through funding of startups, collaboration with other companies, and expansion of collaborations between universities and industry

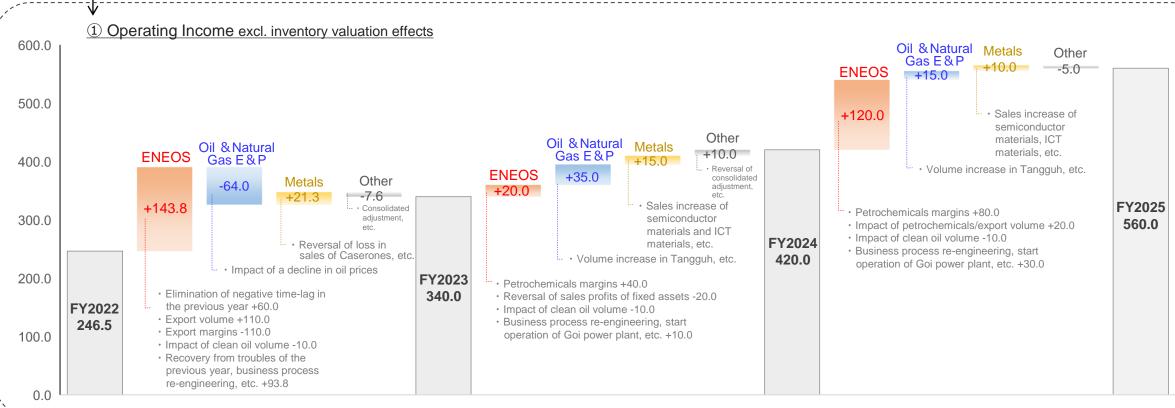
- Funding of startups
- Leading collaboration with other industries for expansion of community services
- Strengthening of technology development through joint research with educational and research institutions



2. 3rd Mid-Term Mgmt. Plan

# (Reference) Net Income by Segment (excluding inventory valuation effects)





# (Reference) Investment Plan for Each Segment

### 3-year total (¥bn)

Energy	Strategic investments	700.0
	Business maintenance	300.0
	Subtotal	1,000.0

- Expansion of power generation sources (Goi Thermal Power Station)
- · Domestic and overseas renewable energy projects
- SAF Plant No. 1 (Wakayama)
- · Creation of hydrogen supply chain

Oil & Natural Gas E&P	Strategic investments	80.0
	Business maintenance	100.0
	Subtotal	180.0

- Additional LNG development within mining areas in Indonesia (Tangguh) and Papua New Guinea
- Domestic and overseas CCS business

Metals	Strategic investments	
	Business maintenance	150.0
	Subtotal	440.0

- Enhancement of production capacity for semiconductor materials and communications materials (New plants in Hitachinaka and North America)
- · Recycled copper

Other	60.0
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Total	1,680.0
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#### Investment plan for each year

FY2023	640.0
FY2024	510.0
FY2025	530.0
3-year total	1,680.0

# (Reference) ROIC Targets

	FY2022		
	ROIC	Net operating profit after tax <sup>1</sup>	Invested capital
Petroleum Products	<u>1%</u>	¥bn <b>38.2</b>	¥bn <b>3,170.0</b>
Materials (High Performance Materials)	<u>6%</u>	11.7	190.0
Electricity	<u>-6%</u>	-7.3	120.0
Renewable Energy	<u>-6%</u>	-25.4	400.0
Oil & Natural Gas E&P	<u>23%</u>	74.8	330.0
Metals	<u>5%</u>	60.5	1,180.0
Other Segments	<u>10%</u>	33.6	340.0
Total excluding incubation businesses	<u>3%</u>	186.1	5,730.0
Incubation businesses <sup>2</sup> Financial account balance, etc.	-	-13.0 -76.5	5.0
Net Income excl. inventory valuation effects	i	96.6	

	F۱			
	ROIC	Net operating profit after tax <sup>1</sup>	Invested capital	/ WACC
	<u>6%</u>	¥bn <b>188.0</b>	¥bn <b>3,360.0</b>	3%
	<u>8%</u>	17.0	220.0	5%
	<u>14%</u>	25.0	180.0	2%
	<u>0%</u>	-1.0	600.0	2%
1	<u>14%</u>	59.0	430.0	10%
	<u>6%</u>	93.0	1,460.0	6%
	<u>15%</u>	41.0	280.0	3%
	<u>7%</u>	422.0	6,530.0	4%
	-	-20.0 -92.0 310.0	102.0	

Aim to improve ROIC by executing fundamental improvement measures such as reduction of refinery troubles and business process re-engineering

Seek to improve ROIC through the maximization of integration synergies with ENEOS Materials and the establishment of earnings bases in existing businesses

Aim for significant ROIC improvements by improving the balance of procurement and sales through operation start of in-house power sources (Goi thermal power plant) in FY2024, and creating a system that is not easily affected by price increases in the wholesale electricity market

Steadily accumulate capacity within the scope of financial discipline during the period of the 3rd Mid-Term Mgmt. Plan, and aim for ROIC greater than WACC from 2030 when the depreciation burden is reduced

Maintain a good ROIC through contributions from the Indonesia Tangguh Train 3 Expansion Project and the Helang Gas Field Additional Development Project in Malaysia

Implement portfolio improvement through concentrated investment in the highly profitable area of advanced materials. Aim for further ROIC improvement after the transition to the 4th Mid-Term Mgmt. Plan when large-scale investments (Hitachinaka Plant to start operation in FY2026) take effect.

- 1 Excl. inventory valuation effects
- 2 SAF, synthetic fuels, CCS/CCUS, hydrogen, mobility businesses

4

# Carbon Neutrality Plan (excerpt)

With the aim of realizing a carbon neutral society, in addition to reducing the ENEOS Group's greenhouse gas emissions, we will promote "energy transition" and a "circular economy" to contribute to the reduction of society's greenhouse gas emissions.

Based on the Third Medium-Term Management Plan, we have formulated the Carbon Neutrality Plan as a roadmap to pursue the above.

▶ For details, please refer to the press release announced on May 11, 2023

# **ENEOS Group Carbon Neutrality Plan**

# **ENEOS Group Long-Term Vision**

The ENEOS Group is taking on the challenge of achieving both a stable supply of energy and materials and the realization of a carbon-neutral society.

Our business areas surrounding carbon neutrality

Our contribution to primary energy in Japan: Approx. 15% (Conversion of oil & gas turnover¹)
Our greenhouse gas emissions (Scope 1+2+3): Approx. 210 million tons per year
(Japan's greenhouse gas emissions: Approx. 1.2 billion tons per year)

Estimate by ENEOS based on figures published by the Ministry of Economy, Trade and Industry

### **ENEOS Group Carbon Neutrality Policy**

To realize a carbon-neutral society, we will reduce our greenhouse gas emissions while pursuing **energy transition** and **a circular economy** to contribute to the **reduction of society's greenhouse gas emissions.** 

### Reduction of our greenhouse gas emissions



- Aim for the realization of carbon neutrality in our emissions<sup>2</sup> by FY2040.
   Scope 1+2
- Aim for the reduction of greenhouse gases by 46%<sup>3</sup> by FY2030.
   Compared to FY2013
- To achieve carbon neutrality, we will broadly engage in the reduction of greenhouse gas emissions, CCS (carbon dioxide capture and storage), and CO<sub>2</sub> removal (absorption by forests, etc.).

# Contribution to the reduction of society's greenhouse gas emissions

#### Carbon neutrality as a pillar of future business

- Working in step with the government and other companies, aim for the realization of carbon neutrality, including Scope 3, by FY2050.
- In the energy area, we aim to halve CO<sub>2</sub> emissions per unit of energy supplied (CI<sup>4</sup>) by around FY2040 by promoting energy transition through expansion of renewable energy and early practical implementation of hydrogen and carbonneutral fuel.
- In the materials and services area, we will pursue the development of a circular economy and the expansion of avoided emissions through conversion of raw material, etc.

4 Carbon Intensity

# Initiatives for the Realization of Carbon Neutrality

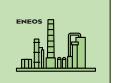
### Pursue reduction of our greenhouse gas emissions while actively contributing to the reduction of greenhouse gas emissions of society

Policies on Initiatives for the Realization of Carbon Neutrality

#### **ENEOS Measures**

Reduction of our greenhouse gas emissions (Scope1+2)





- Appropriate treatment of crude oil (according to demand)
- Efficiency improvement of manufacturing and businesses (energy conservation, fuel switching, utilization of renewable energy, etc.)
- Utilization of carbon credit



Artificial fixation of CO<sub>2</sub>



- CCS (carbon dioxide capture and storage)
- New methods such as BECCS<sup>1</sup> and DACCS<sup>2</sup> utilizing CCS

Increase of natural absorption of CO<sub>2</sub>



- Absorption by forests (afforestation, forest management, etc.)
- Other natural absorption methods (blue carbon and soil carbon fixation)

Contribution to the reduction of society's greenhouse gas emissions

(Scope3, avoided emissions

Contribution to the reduction of emissions in the energy area







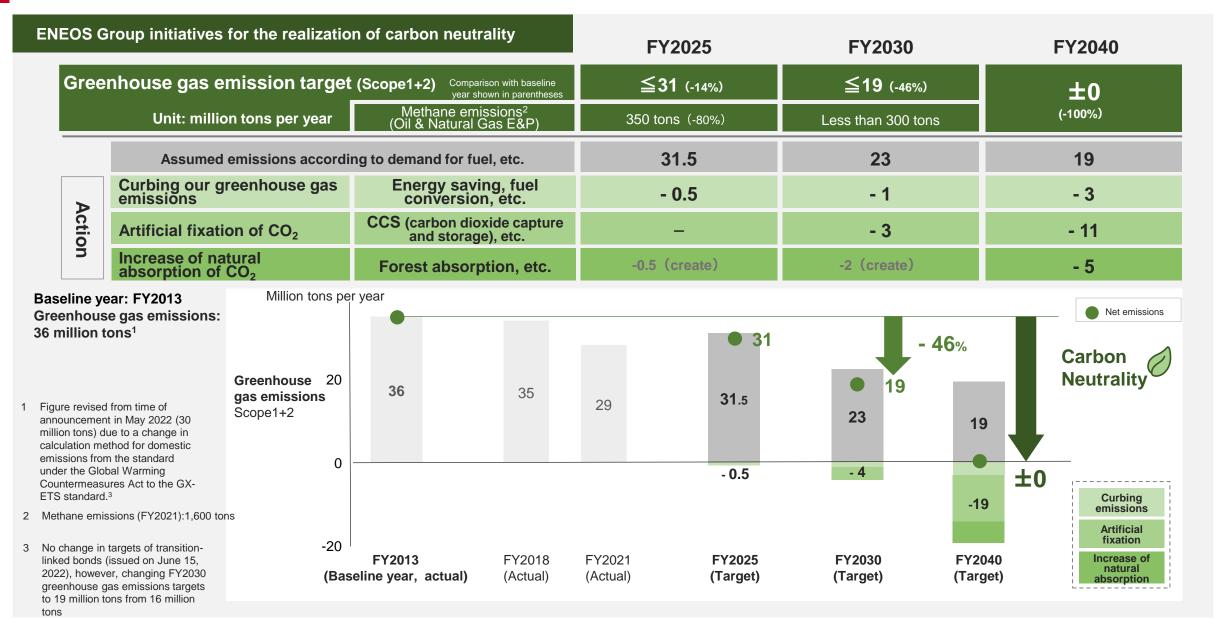
Pursuit of energy transition (hydrogen, carbon-neutral fuels, renewable energy, etc.)

Contribution to the reduction of emissions in the materials and services area

Pursuit of circular economy (recycling, sharing, etc.)

Expansion of supply of products contributing to avoided emissions

# Roadmap for Reduction of ENEOS Group Greenhouse Gas Emissions



## **Pursuing Energy Transition**

## Aim to halve CO<sub>2</sub> emissions per unit of energy supply (CI) by FY2040

#### Business scale target Vision for FY2040 for FY2040 **Establish the largest** manufacturing and supply 1-4 million tons CO<sub>2</sub>-free hydrogen system in Japan **Establish the largest supply Domestic share** SAF<sup>1</sup> system in Japan 50% Carbon-Supply Positioned as a fuel required for transition, effectively neutral **Biofuel** 20% blend with utilized as a base material qasoline\* **fuels** \*Biofuels + Synthetic fuels **Operate large-scale** Synthetic fuel manufacturing **Synthetic** commercial plant for At least 10.000 fuel synthetic fuel barrels per day Establish a position as a major Total power generated from Renewable player in renewable energy renewable energy power source development 6 - 8GWenergy **Create the largest CCS CCS** (for other companies) value chain in Japan and 4-10 million tons (carbon dioxide capture and storage) make it profitable

### Unit: g-CO<sub>2</sub>/MJ FY2040 Scope1+2 Carbon neutrality 80 Halved in Scope1+2+3 FY2040 (Energy) 60 Low-carbon society scenario (Carbon (2.6°C)<sup>2</sup> Intensity) 40 Carbon-neutral society scenario (1.5 - 2°C)3 20 FY2020 FY2030 FY2040 FY2050

Indicator of CO<sub>2</sub> emissions (g) (Scope 1+2+3) per unit of energy supply (MJ).

Does not include materials (petrochemicals, lubricants, asphalt, etc.)

2 ENEOS assumptions referring to IEA STEPS case

Reduced due to supply of hydrogen, carbon-neutral fuels, renewable energy, etc.

CI (Carbon Intensity)

CI targets for the energy supplied by the ENEOS Group

<sup>1</sup> Sustainable Aviation Fuel

(Notes)

Plans, forecasts, strategies and other non-historical facts contained in these materials are forward-looking statements based on information available at the time of preparation and are subject to various risks and uncertainties. Actual figures and indicators related to business performance and management may differ significantly from these forecasts due to changes in the business environment and other factors.

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