

# Net-Zero Pathway: Taiwan's Comprehensive Carbon Reduction Action Plan



**National Development Council**

**January 23, 2025**



# **Outline**

**I. Introduction**

**II. Greenhouse Gas Reduction Targets**

**III. Carbon Reduction Action Plan**

**IV. Innovative Mechanisms**

**V. Financial Planning**

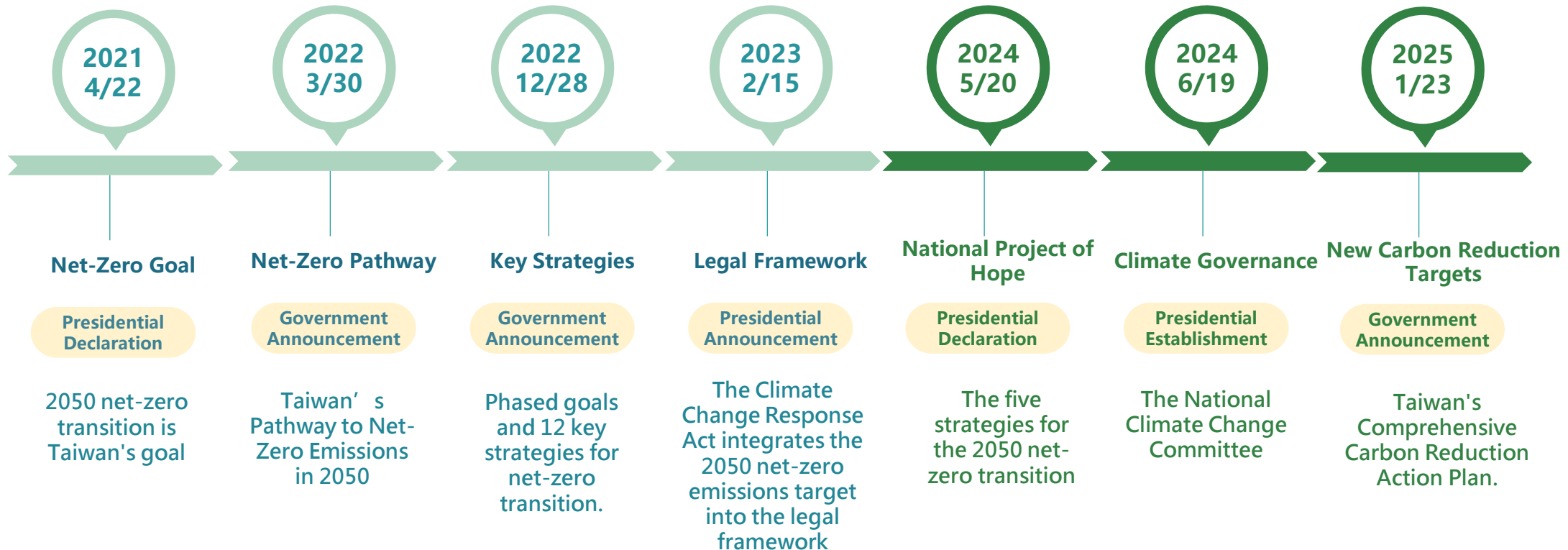
**VI. Expected Benefits**

# I. Introduction



# Process of Promoting 2050 Net-Zero

To implement President Lai's "National Project of Hope" and its five key strategies for green growth and net-zero transition by 2050, while aligning with international commitments in setting Taiwan's Nationally Determined Contributions (NDC) targets, the administration has formulated the "Taiwan's Comprehensive Carbon Reduction Action Plan" to steadily and pragmatically achieve the 2050 net-zero goal.



# Taiwan's Comprehensive Carbon Reduction Action Plan

## Green Growth and 2050 Net-Zero Transition

National Vision

Five Key Strategies of the National Project of Hope

Build a smart green energy strategy

Promote the dual-axis transformation of industries in both digital and green aspects

Shape a net-zero sustainable green lifestyle

The government is the key support for the net-zero transition.

Just transition that leaves no one behind

Action Plan

Re-optimize



Add new flagship projects to enhance carbon reduction efforts

Build a foundation

Rolling adjustment to ensure autonomous carbon reduction

Six Key Innovative Mechanisms

Technological Innovation

Financial Support

Carbon Pricing

Regulatory Adjustment

Green Collar Talent

Community Driven

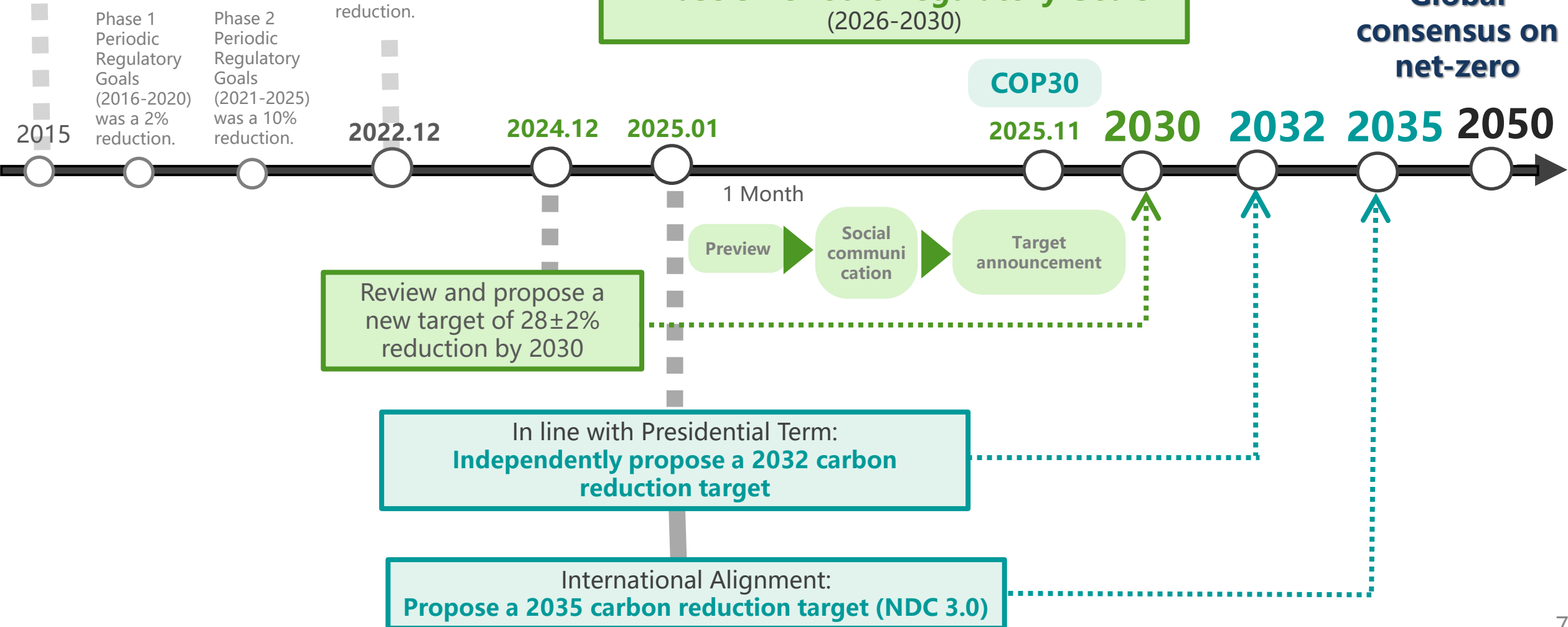
# II. Greenhouse Gas Reduction Targets



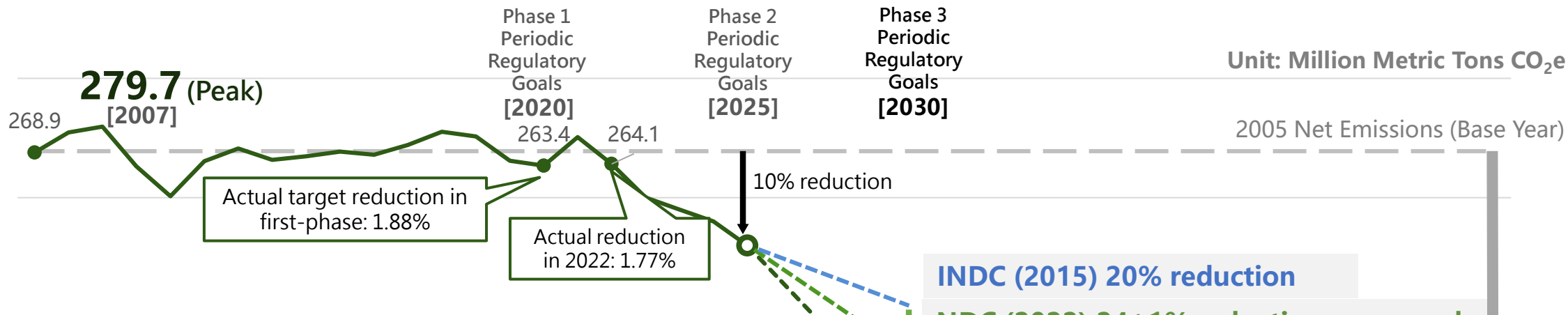
# Setting New Carbon Reduction Target

According to the COP 21 Paris Agreement, the target for 2030 (NDC 1.0) is a 20% reduction

According to the COP 26 resolution, the target for 2030 (NDC 2.0) is a 24±1% reduction.



# Setting Phase 3 Periodic Regulatory Goals



Compared to neighboring Asian countries, **only Japan has a higher target**

|  | Taiwan    | Japan | South Korea | China | Singapore |
|--|-----------|-------|-------------|-------|-----------|
| 2030 NDC Target Emissions Reduction Compared to 2005 | -26%~-30% | -41%  | -14%        | +57%  | +65%      |

Carbon Reduction Flagship Projects

+

Technological Innovation  
Financial Support  
Carbon Pricing

Net-Zero Emissions by 2050

2005 2010 2015 2020 2022 2025 **2030** 2050

# III. Carbon Reduction Action Plan



# Comprehensive Carbon Reduction Action Plan

## Top-Down Approach:

Add 20 carbon reduction flagship projects in 6 major sectors to enhance the reduction efforts

### Energy Sector

Ministry of Economic Affairs

- Accelerate renewable energy: Solar power 【MOEA】
- Accelerate renewable energy: Offshore wind power 【MOEA】
- Breakthrough in renewable energy: Geothermal 【MOEA】
- Breakthrough in renewable energy: Small hydro 【MOEA】
- Technological energy storage 【MOEA】
- Methane Pyrolysis 【MOEA】
- Hydrogen (including ammonia) supply chain 【NDC】
- Carbon capture, utilization, and storage (CCUS) 【MOENV】

### Residential and Commercial Sector

Ministry of the Interior

- Net-zero buildings 【MOI】
- Deep energy saving-Residential and Commercial Sector 【MOEA】

### Agricultural Sector

Ministry of Agriculture

- Agricultural ecological resilience and carbon sinks 【MOA】
- Low-carbon sustainable agriculture 【MOA】

### Environmental Sector

Ministry of Environment

- Resource circulation 【MOENV】
- Net-zero sustainable green living 【MOENV】

### Manufacturing Sector

Ministry of Economic Affairs

- Industry self-reduction 【MOEA】
- Deep energy saving – manufacturing sector 【MOEA】
- State-owned enterprise carbon reduction – China Steel Corporation 【MOEA】
- State-owned enterprise carbon reduction – CPC Corporation, Taiwan 【MOEA】

### Transportation Sector

Ministry of Transportation and Communications

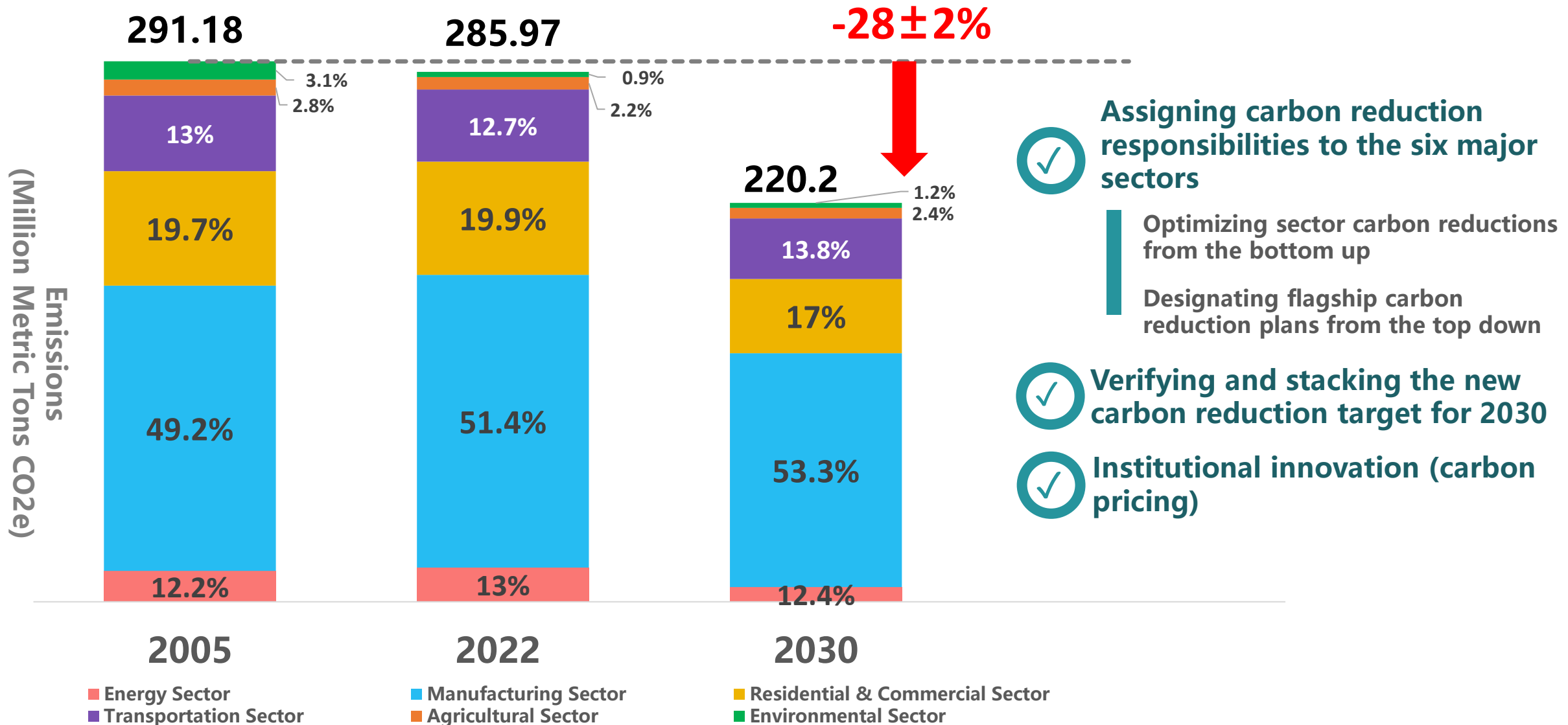
- Electrification and decarbonization of commercial vehicles 【MOTC】
- Sustainable aviation fuel 【MOTC】



## Bottom-Up Approach:

Rolling adjustments of 12 key strategies, proposing departmental autonomous carbon reduction plans (total of 80 plans) 10

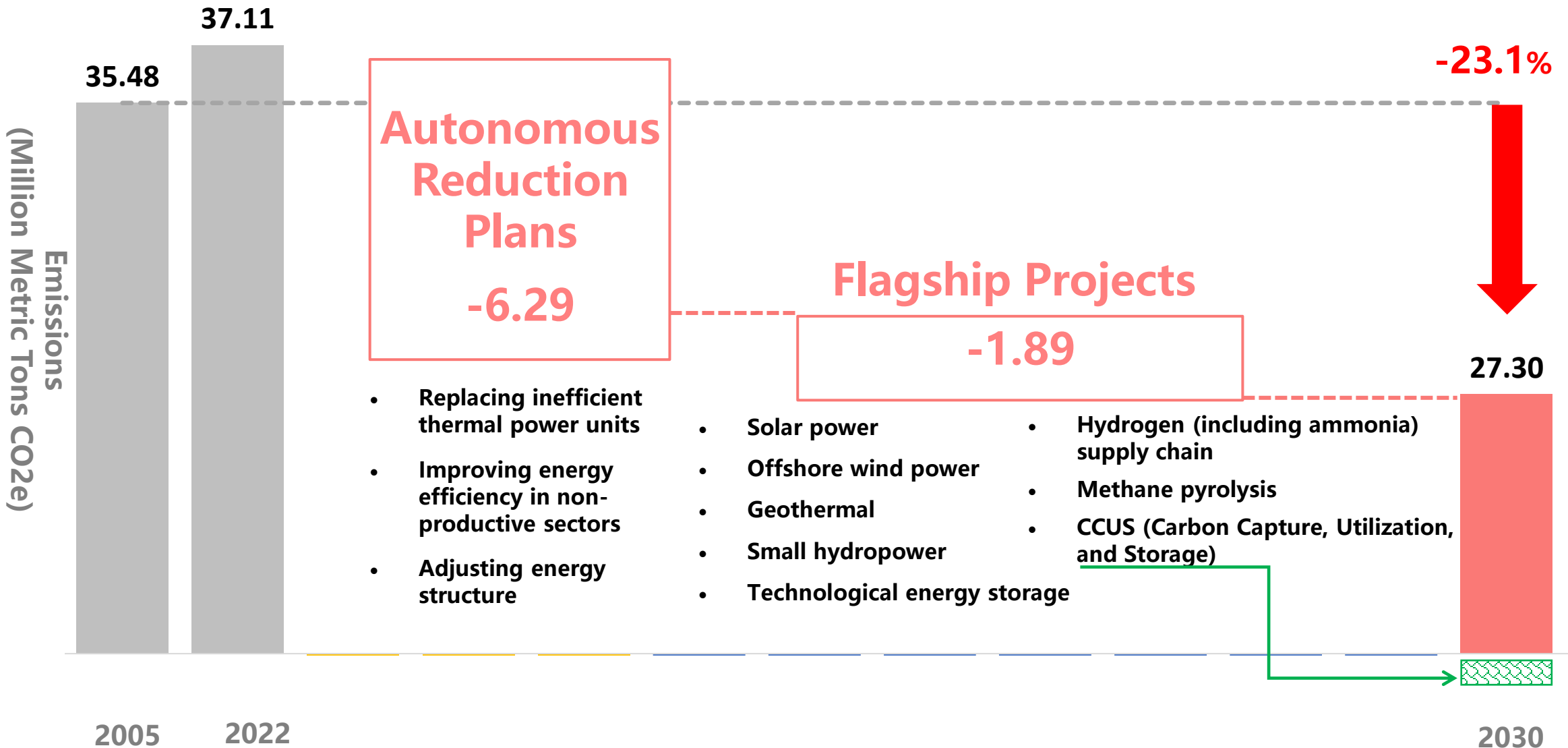
# Overall Carbon Reduction Targets for the Six Major Sectors



Note: The 2030 carbon reduction target is calculated based on a 27% reduction.

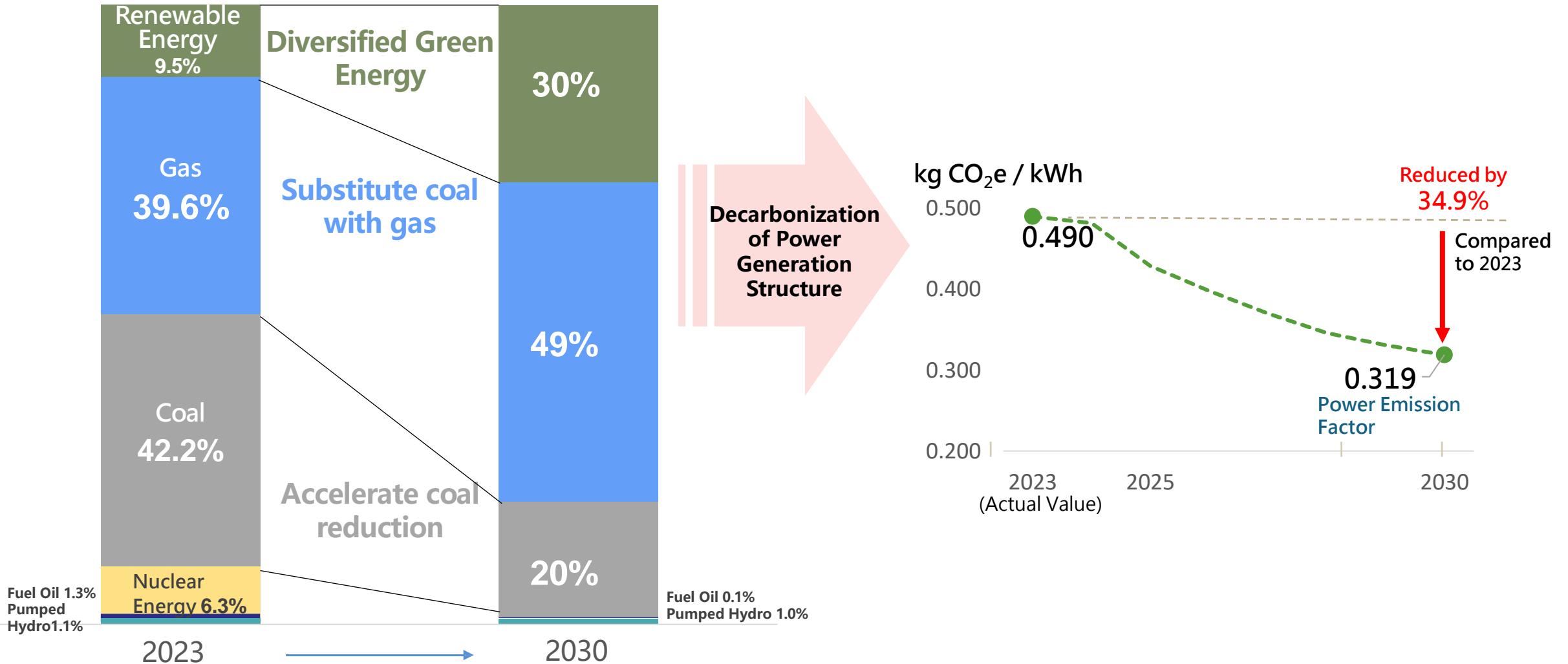
# Energy Sector Carbon Reduction Actions (1/4)

## 2030 Carbon Reduction Target: 8.18 Million Metric Tons CO<sub>2</sub>e



# Energy Sector Carbon Reduction Actions (2/4)

■ The power emission factor will decrease to 0.319 kg CO<sub>2</sub>e / kWh by 2030



Note: Power emission factor = (Emission from power generation by integrated power companies, private power plants, and cogeneration plants —power emission borne by line loss) / Total electricity sales volume.

## Accelerating Renewable Energy



### Solar Photovoltaics

- **Setup space:** Incentives for small rooftops, mandatory installation for new buildings
- **Energy Efficiency Improvement:** Replace old photovoltaic panels with high-efficiency ones in existing areas
- **Process Reform:** Promote public-to-public coordination mechanisms, establish guidance and communication platforms for installation applications



### Offshore Wind Power

- **Zonal Development:** Continue to promote block development
- **Sea Area inventory:** inventory potential new sea areas
- **Funding Introduction:** Guide private sector investment in development

## Breakthroughs in Renewable Energy



### Geothermal

- **Capacity Enhancement:** State-owned enterprises take the lead in introducing drilling equipment
- **International Cooperation:** Expand deep geothermal drilling projects
- **Process Optimization:** Public-to-public model, coordinate consultations with indigenous people



### Small Hydropower

- **Expand Project Sources:** Investigate and assess potential project sites
- **Increase Incentives:** Review feed-in tariffs and develop incentive mechanisms
- **Process Optimization:** Public-to-public promotion, integrate land recruitment

## Deploying Emerging Technologies



### Technological Energy Storage

- **User Storage:** Introduce "behind-the-meter" energy storage time-of-use electricity pricing, promote joint demonstration zones outside factories
- **Expand Subsidies:** Increase subsidies for fuel cell installations

## Deploying Emerging Technologies



### Hydrogen (including Ammonia) Supply Chain

- **Hydrogen Applications:** Expand the use of hydrogen/ammonia power generation technology and fuel cell establishment
- **Infrastructure:** Expand the establishment of hydrogen refueling stations and liquid ammonia storage tank infrastructure.
- **Hydrogen Supply:** Prioritize low-carbon ammonia imports and develop domestic hydrogen production technologies.



### Decarbonized Hydrogen Fuel

- **Test Sites:** Establish co-firing hydrogen power generation test sites.
- **Expanded Development:** Gradually scale up natural gas decarbonization hydrogen production.



### Carbon Capture, Utilization, and Storage (CCUS)

- **Technology Promotion:** Develop efficient and low-cost carbon capture technologies and promote integrated steel and chemical production.
- **Establishment of Test Sites:** Establish carbon sequestration test and commercialization sites.

### Eliminating Low-Efficiency Thermal Units

Replace outdated units with newer units for power generation by 2030.

### Improving Energy Efficiency in Non-Production Sectors

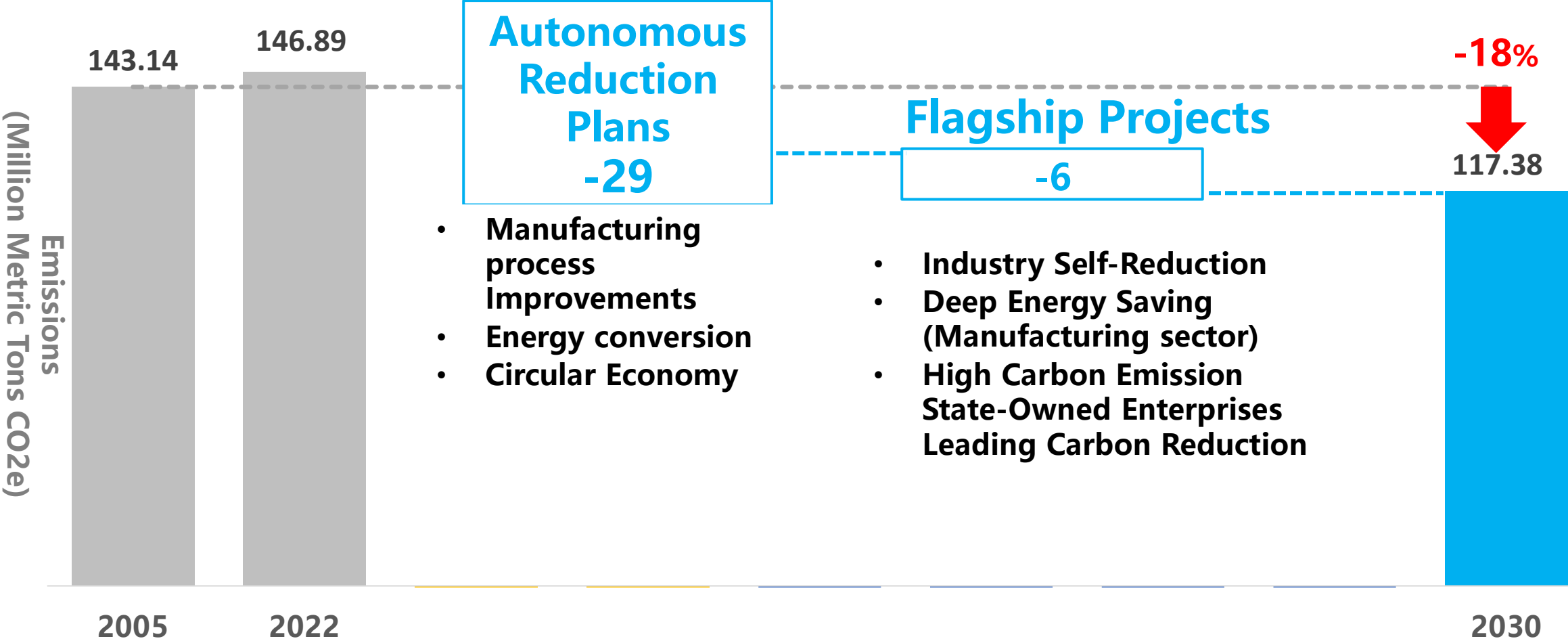
Evaluate the replacement of air conditioning equipment older than 9 years and prioritize the adoption of high-efficiency, variable-frequency units.

### Adjusting Energy Structure

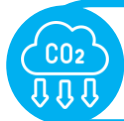
Expand renewable energy and build a low-carbon energy supply system.

# Manufacturing Sector Carbon Reduction Actions(1/2)

## 2030 Carbon Reduction Target: 25.77 Million Metric Tons CO<sub>2</sub>e



# Manufacturing Sector Carbon Reduction Actions(2/2)



## Industry Self-Reduction of Emissions

- Assisting the **top 500 emission source manufacturers** in implementing self-reduction of carbon emissions
  - Experts visit factories and introduce carbon reduction measures
- Assisting **140,000 small and medium-sized manufacturers** in low-carbon transition
  - Reducing carbon emissions in supply chains with large companies leading the way, supported by government resources



## Deep Energy Saving- Manufacturing Sector

- Providing **3 major guarantees** to enhance **ESCO service capacity**
  - Ten billion NT\$ project loan guarantees, insurance claims to reduce risks, matching investments with ESCO
- **Implementing energy-saving** measures in **3 stages**
  - Establishing an ESCO execution model (18 companies) → Public enterprises leading the way (379 companies) → Expanding to private enterprises (3,018 companies)



## High Carbon Emission State-owned Enterprises Leading Carbon Reduction

- **China Steel Carbon Reduction**
  - Improving energy efficiency
  - Using low-carbon raw materials in blast furnaces
  - Increasing use of scrap steel and reducing use of molten iron
  - Using carbon-free fuel in industrial furnaces
- **CPC Corporation Carbon Reduction**
  - Adjusting refining production models
  - Using renewable energy
  - Using low-carbon raw materials
  - Improving energy efficiency

### Flagship Projects

### Autonomous Reduction Plans

#### Process Improvement

- Providing system optimization technical services
- Introducing energy management monitoring systems
- Promoting green factory certifications

#### Energy Transformation

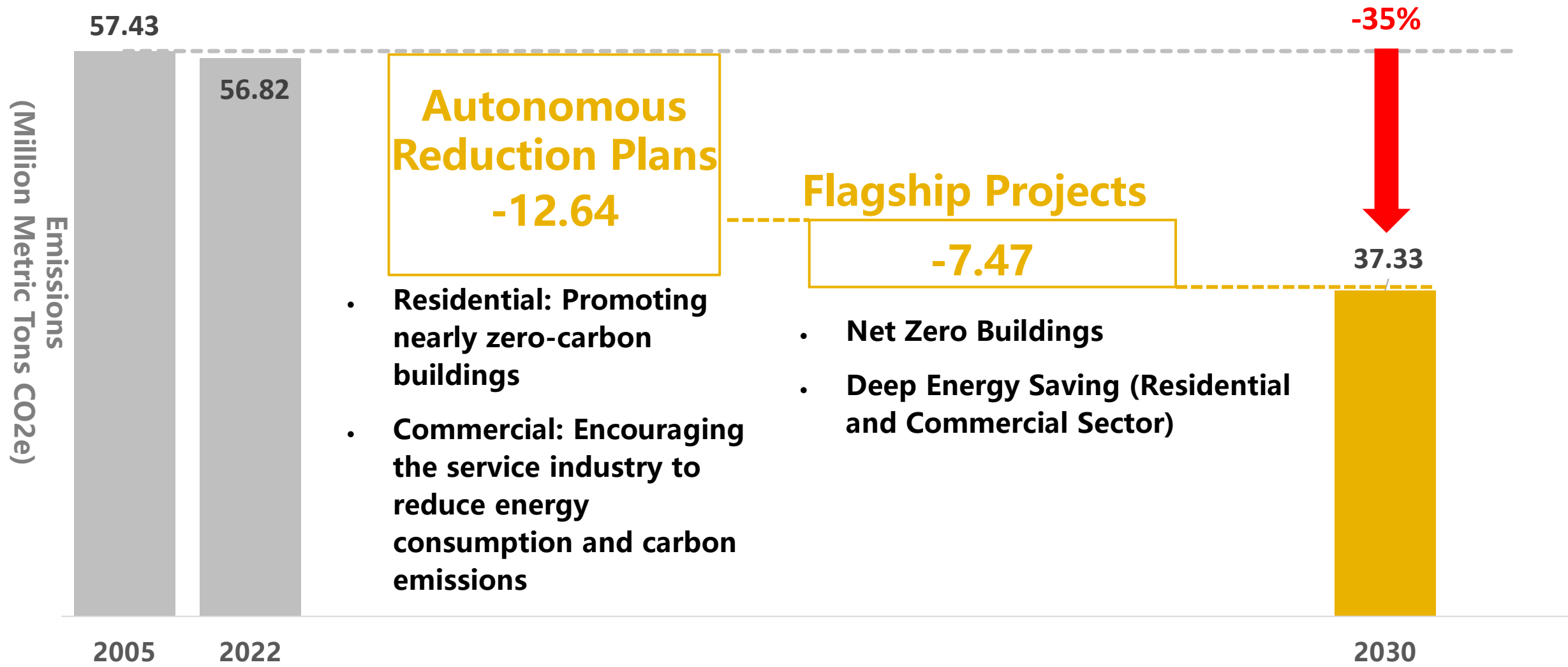
- Promoting low-carbon production
- Matching supply and demand for biomass fuels
- Expanding the use of green electricity in industries

#### Circular Economy

- Integrating regional energy resources
- Investing in innovative technology research and development
- Recycling and reusing waste resources

# Residential and Commercial Sector Carbon Reduction Actions (1/2)

## 2030 Carbon Reduction Target: 20.1 Million Metric Tons of CO<sub>2</sub>e



# Residential and Commercial Sector Carbon Reduction Actions (2/2)

Flagship Projects



## Net Zero Buildings

- Low-carbon and net zero for old homes and social housing
- Expanding building energy efficiency improvements
- Smart net zero dual-axis transformation



## Deep Energy Saving (Residential and Commercial Sector)

- Providing incentives for energy saving and carbon reduction
- Encouraging self-reduction of carbon emissions
- Mandatory regulatory measures
- Equipment efficiency improvement and energy-saving promotion

## Existing Buildings

Demonstration subsidies for building energy efficiency improvements

Government Demonstration  
Private Sector Participation

- Public existing buildings and national park buildings
- Expanding participation from the real estate industry, cooperatives, security industry,

## New Buildings

Amendment and implementation of building regulations

- Revising energy-saving design standards (building energy efficiency)
- Developing mandatory solar photovoltaic regulations

## Innovative Technologies

Introducing low-carbon construction methods, digital net-zero applications

## Residential

First encourage the replacement of old equipment to improve energy efficiency standards

- Continuing to promote old appliance replacement (by 2026), refunding reduced goods tax (by 2030)
- Increasing minimum energy efficiency for refrigerators and air conditioners to the current level 3 standard (by 2030)

## Commercial

Large users leading the way + introducing energy-saving services

- Introducing ESCO energy-saving plans, equipment replacement subsidies
- Raising the energy-saving target for large energy users (1% → 1.5%)
- Encouraging industry self-actions (guidance and training, fuel conversion, etc.)

## Residential Sector: Promoting Nearly Zero-Carbon Buildings

- Promoting green buildings
- Assessing nearly zero-carbon buildings
- Promoting renewable energy
- Developing a building energy efficiency labeling system
- Managing carbon reduction in existing buildings

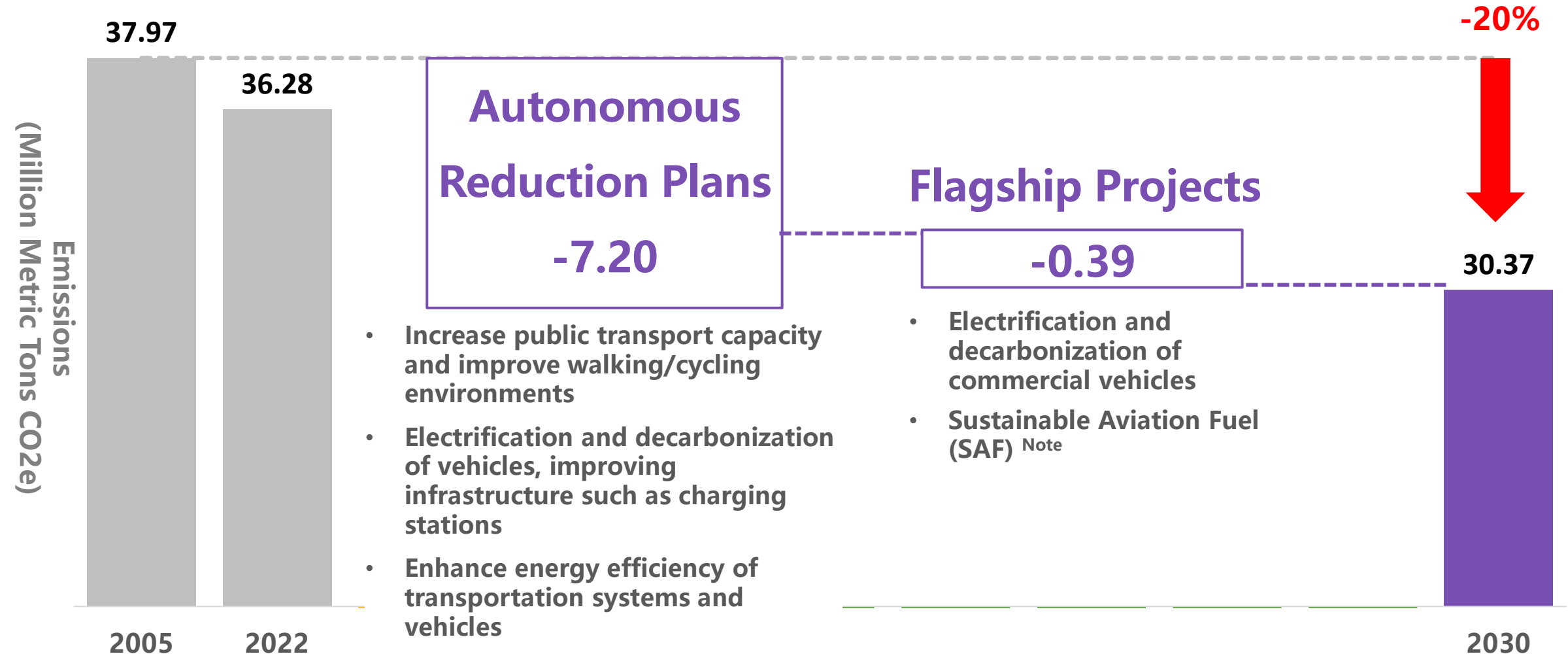
## Commercial Sector: Encouraging Energy-saving and Carbon Reduction in the Service Industry

- Mandatory control measures for the service industry
- Providing incentives for the service industry to reduce energy consumption and carbon emissions
- Encouraging self-reduction of carbon emissions in the service industry

Autonomous Reduction Plans

# Transportation Sector Carbon Reduction Actions (1/2)

## 2030 Carbon Reduction Target: 7.59 Million Metric Tons of CO<sub>2</sub>e



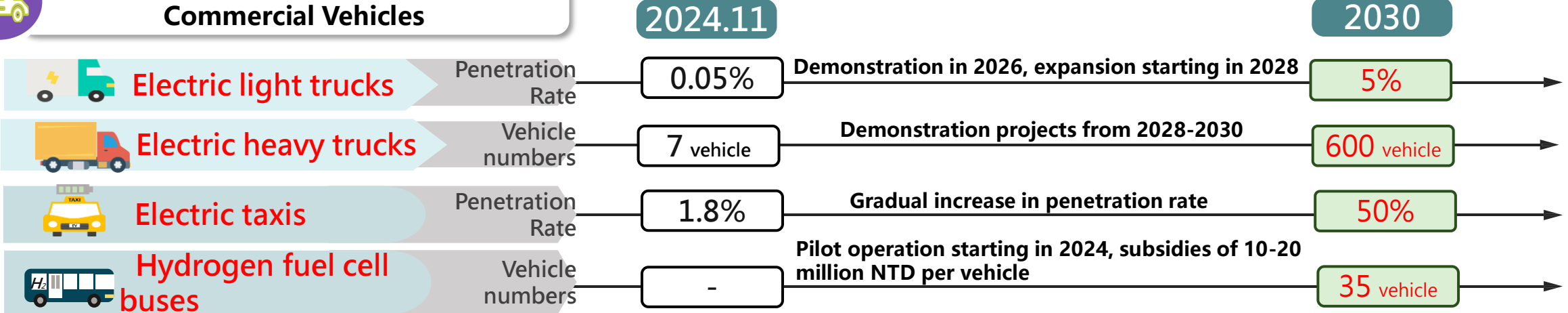
Note: International aviation carbon reduction is not part of the NDC scope and is not included.

# Transportation Sector Carbon Reduction Actions (2/2)

Flagship Projects



## Electrification and Decarbonization of Commercial Vehicles



## Sustainable Aviation Fuel (SAF)

### SAF Work Platform

User end

Supply end

- Add SAF flights at Taoyuan, Songshan, and Kaohsiung airports in 2025
- At least 5% SAF usage by national airlines by 2030
- Develop SAF sources in 2025, open up imports of waste edible oil and ban exports
- By 2030, establish mandatory regulations for fuel suppliers to provide fuel containing SAF

Autonomous Reduction Plans

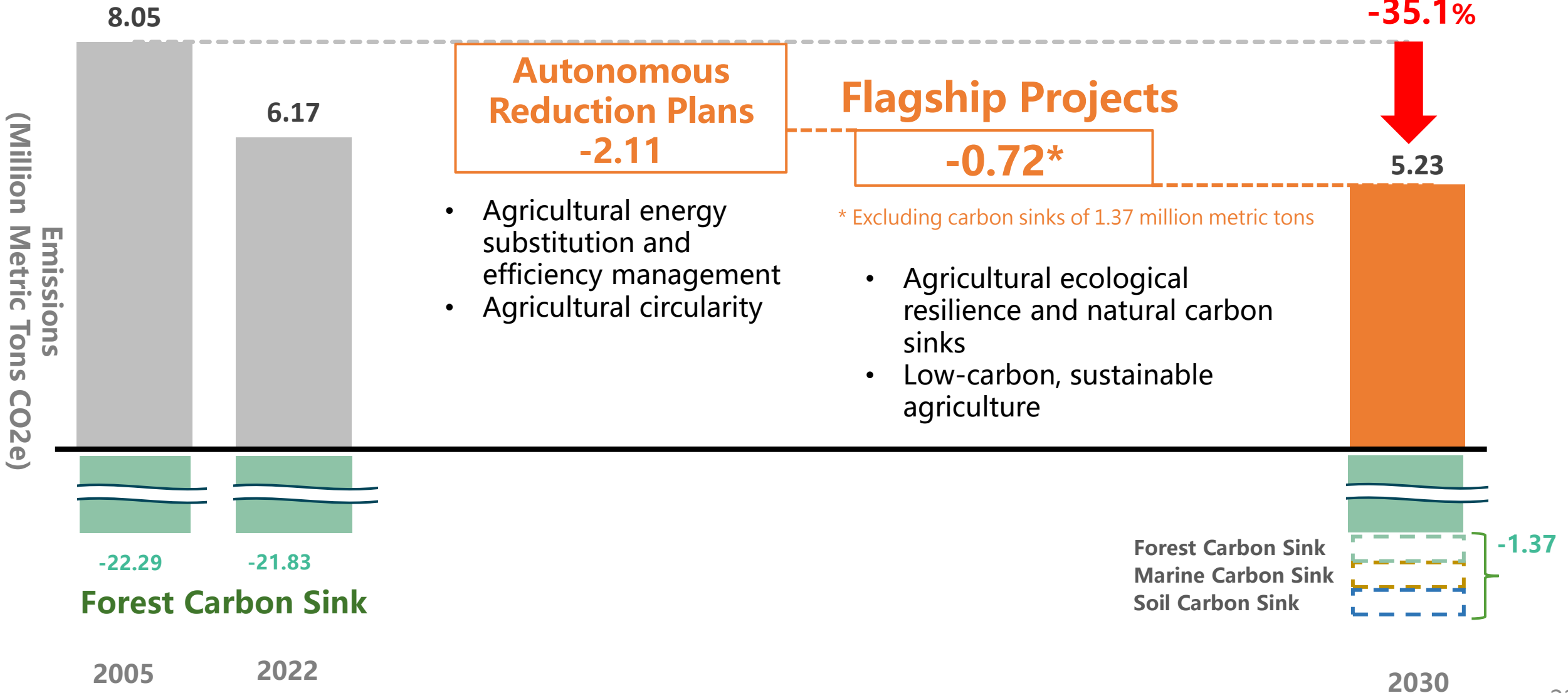
- **Increasing public transport capacity and improving walking/cycling environments**
  - Enhance public transport service systems
  - Offer ticket discounts

- **Promoting electrification and decarbonization of vehicles, and improving infrastructure such as charging stations**
  - Promote electrification of city buses, cars, and motorcycles, and provide complete environmental use measures

- **Improving energy efficiency of transportation systems and vehicles**
  - Develop intelligent transport systems, vehicle energy efficiency and energy-saving tire management, optimize clean vehicles, and promote onshore power plans

# Agricultural Sector Carbon Reduction Actions(1/2)

■ 2030 Carbon Reduction Target: 2.82 Million Metric Tons of CO<sub>2</sub>e



# Agricultural Sector Carbon Reduction Actions(2/2)



## Agricultural Ecological Resilience and Natural Carbon Sinks

### Flagship Projects

#### Agricultural Ecological Resilience

- Enhance agricultural climate risk management capability
- Explore diverse agricultural patterns under climate change

#### Forest Carbon Sink

- Increase forest area and forest management

#### Marine Carbon Sink

- Restore and manage seagrass beds, mangroves, wetlands, and salt marshes

#### Soil Carbon Sink

- Adjust crop cultivation patterns and apply soil biological resources



## Low-Carbon Sustainable Agriculture

#### Rice Field Reduction

- Intermittent irrigation and drainage in rice paddies, precision fertilization techniques

#### Energy Efficiency Management

- Purchasing of deep-sea fishing boats, energy-saving facilities at livestock farms

#### Low-Carbon Circulation

- High feed efficiency, low-carbon emissions in aquaculture production, utilization of residual resources for energy, feed, materials, and fertilizers

#### Energy Substitution

- Electrification of agricultural machinery

### Autonomous Carbon Reduction

#### Carbon Self-Reduction Agricultural Energy Substitution and Effectiveness Management

- Coastal fishing boat acquisition and handling, rewarding fishing moratoria
- Promote energy-saving water pumps, set up rice husk furnaces

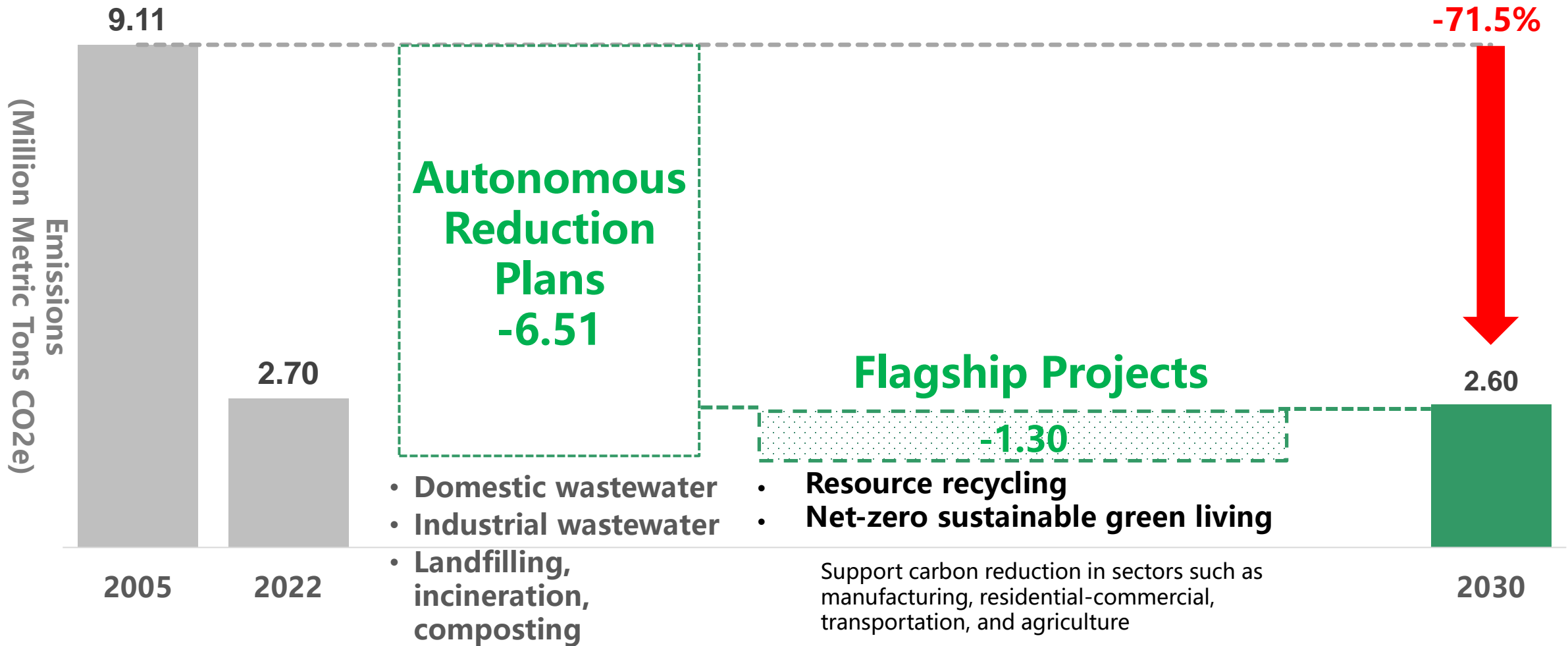
#### Agricultural Circulation

- Reuse of livestock biogas
- Irrigation with pig manure and urine

# Environmental Sector Carbon Reduction Actions(1/2)



■ 2030 Carbon Reduction Target: 6.51 million metric tons CO<sub>2</sub>e



# Environmental Sector Carbon Reduction Actions(2/2)



## Resource Recycling

Enhancing the recycling and utilization of carbon emissions at the end of the cycle, and supporting carbon reduction in other sectors.

- **Resource Recycling**  
Climate Circulation Technology Park, 8+N Resource Recycling Alliance, fully electric resource recovery vehicles.
- **Public Incineration Plants**  
Install low-temperature power generation and improve power generation facilities, install carbon capture and carbon reduction facilities.
- **Pollution Control and Energy Efficiency Upgrades for Carbon Reduction**  
Replace existing equipment with high-efficiency energy-saving equipment, build recycling systems, install energy-saving lighting.
- **Livestock Industry**  
Biogas recovery for power generation, subsidies for wastewater energy-saving and energy creation.

### Domestic Wastewater

- Increase domestic wastewater treatment rates.
- Build sustainable and smart sewer systems.

### Industrial Wastewater

- Promote methane recovery facilities for wastewater treatment.
- Develop a biogas power generation industry chain, improve river environmental quality.

### Landfilling, Incineration, Composting

- Diversify waste treatment, reduce waste and increase recycling, apply resource recycling carbon reduction technologies.



## Net-Zero Sustainable Green Living

Driving industry carbon reduction transition through changes in behavior and consumption patterns

- **Environmental Labels and Green Procurement**  
Subsidies for businesses to apply for labels, expand government green procurement.
- **Existing Residential Insulation Improvement**  
Subsidies for building insulation improvements, prioritize the use of domestically produced green building materials.
- **Low-Carbon Transition of Eco-friendly Restaurants**  
Promote zero-waste, low-carbon diets, reduce single-use dining utensils.
- **Support for Carbon Reduction Innovative Living**  
Guide behavior change through eco-friendly point collection.
- **Green Living Pilot Area Construction**  
Collaborate with local governments to create low-carbon residential and commercial spaces.
- **Low-Carbon Sustainable Community Certification and Resilient Home Construction**  
Assist villages and communities apply for low-carbon sustainable home certification, create local distinctive low-carbon lifestyles, train community green-collar talent

Flagship Projects

Autonomous Reduction Plans

# IV. Innovative Mechanisms



# Six Major Innovation Mechanisms

## 2050 Net-Zero Transition



The Climate Change and Net-Zero Emissions Transition Task Force of the National Council for Sustainable Development

The Public Sector Chief Sustainability Officer Alliance

**Public-Private Partnership**

**Government Leadership**

Technological Innovation



Financial Support



Carbon Pricing



Regulatory Adjustment



Green Collar Talent



Community Driven



# Technological Innovation

## Three Key Strategies of Net-Zero Technology Deployment

### Energy Transition Technology



Sustainable Low-Carbon Hydrogen Energy



Hybrid Offshore Energy



Forward-Looking Deep Geothermal Power Generation

### Decarbonized Industry Construction



Carbon Capture and Social Governance Integration



Biomass Sustainable Energy Resource Utilization



Resource Recycling and Green Design



Industrial Equipment Integration and AIoT Innovation for Energy Saving

### Net-Zero Infrastructure



Net-Zero Smart Grid



Basic Infrastructure and Built Environment

Forward-Looking Technology R&D Field Trial



## Ministry Carbon Reduction Flagship Projects



經濟部

- Methane pyrolysis
- Deep Energy Saving
- Small Hydropower
- Technology-Based Energy Storage
- Geothermal



環境部

- Carbon Capture and Storage
- Resource Circulation
- Carbon Pricing and International Cooperation



國家發展委員會

Hydrogen (including Ammonia) Supply Chain



Aviation Fuel (SAF) and Transportation Carbon Reduction

# Financial Support

## Green Finance 3.0

## Green and Transition Finance Action Plan



- Releasing the second edition of the "**Sustainable Activity Determination Guidelines**," expanding the applicable industry scope (e.g., chemicals, steel, semiconductors, etc.).
- Announcing the "**Transition Plan Suggested Coverage**," to assist enterprises in orderly transition, and serve as the basis for discussions in the financial industry.



- Guiding the financial industry to inventory and disclose information on their own carbon emissions (Scope 3) and those of their investment and financing portfolios.



- Prioritizing including **corporate self-determined reduction plans, voluntary emission reduction and offset programs** in investment and financing decision-making.



- Directing funds toward **green and sustainable development fields, issue sustainable development bonds**, green securities products, and support green growth.

## Expanding ESCO Assistance

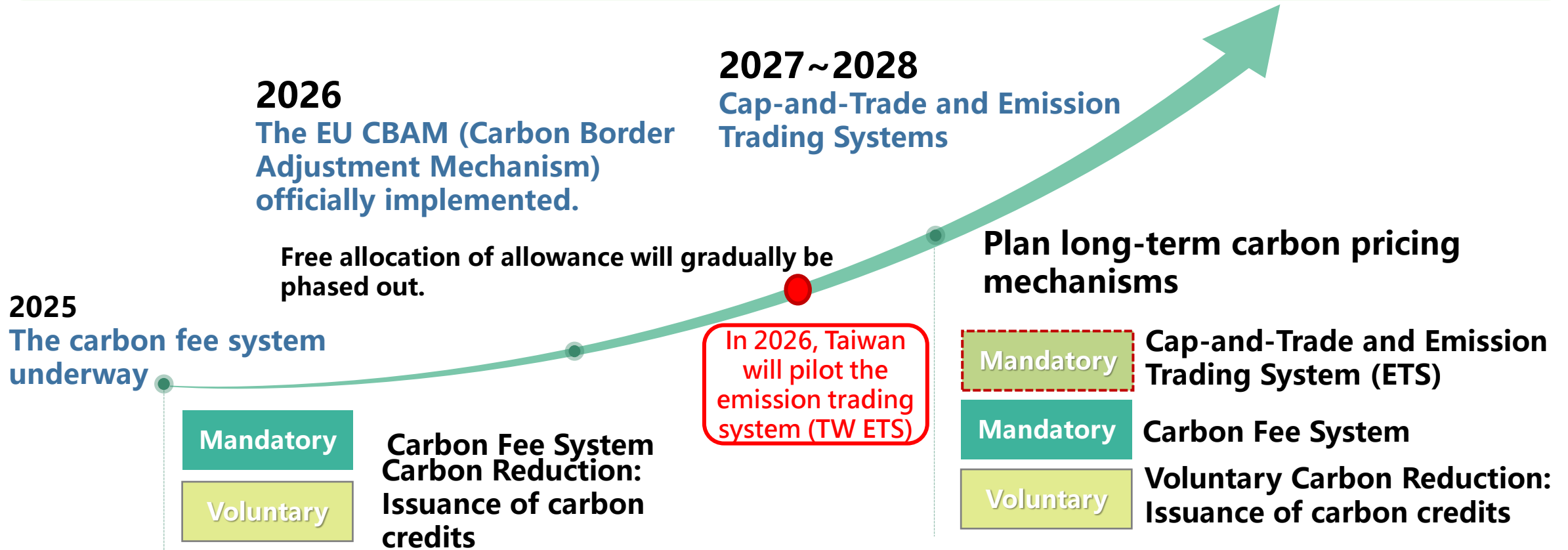


- Expanding the scale of ESCO credit guarantees, strengthen credit guarantee and insurance systems to reduce commercial risks.

# Carbon Pricing

 In line with international advanced practices, promoting carbon pricing in Taiwan

- **Implement carbon fees first, with preferential rates to encourage substantial reductions**, alongside voluntary emission reduction mechanisms for issuing reduction quotas and other diverse reduction mechanisms.
- **The carbon fee system will reduce 37 million metric tons of CO<sub>2</sub>e by 2030**, approximately 14% of the emissions level in 2005.



# Regulatory Adjustment



New or revised net-zero related regulations: **11 laws** and **24 regulations/orders** (or administrative rules)

## Climate Legal Framework

In February 2023, the **Climate Change Response Act** was promulgated, and the **carbon fee regulations** were completed, along with **12 other priority sub-laws**.

### Mature Green Energy

- The Electricity Act
- Energy Administration Act
- Standards for the installation of photovoltaic solar power equipment in buildings

### Forward-Looking Green Energy

- Renewable Energy Development Act
- Regulations for the management of CO2 capture and storage

### Low-Carbon Transition

- Statute for Industrial Innovation
- Circular Economy Promotion Act
- Waste Disposal Act

### Lifestyle Transformation

- Urban Planning Act
- Regulations on the Management of Apartment Buildings
- Sewerage Act
- National Park Act
- New Building Energy Conservation Standards

### Green Finance

- Securities and Exchange Act
- Financial Reporting Standards for Securities Firms/Futures Brokers/Insurance Industry
- Guidelines for the annual reports of banks/publicly listed companies/financial holding companies/finance companies on required provisions.

# Green Collar Talent



Create green job opportunities

Assist affected groups with employment

## Assess labor demand

Estimate green collar talent employment trends  
Identify skills needed for green collar talent

Vehicle maintenance personnel

MOTC

Ecological carbon sink personnel

MOA

Employed workers

MOEA

Students

MOE

Financial personnel

FSC

## Promote supply and demand matching

Green collar talent information platform  
Green collar job vacancy matching



## Expand talent development

Public-private partnership talent development  
Talent development rewards and subsidies

Employed workers  
Unemployed individuals

MOL

Construction management personnel  
National Parks

MOI

Maritime personnel

OAC

Environmental personnel  
Inspection personnel  
Green collar youth

MOENV

Attracting global talent, with an expected cultivation of **80,000** green-collar talents by 2030.

# Community Driven

## Energy Independence and System Resilience

**Build energy resilient communities**

Community energy self-sufficiency

## Local Carbon Reduction and Carbon Sink Benefits

**Local carbon reduction national movement**

Diverse carbon sink benefits everywhere

## Circular Economy and Regional Revitalization

High-value local material circulation

**Low-carbon, sustainable circular environments**

## Sustainable Production and Livelihood Support

**Fair distribution of local production and sales**

Sustainable livelihood support cases

## Talent Transition and Community Networks

Social co-creation and resource integration

**Diverse transformation of green collar talent**



# Just Transition that Leaves No One Behind



**National Project of Hope**



Ensuring opportunities for individual, industry, and group development



Transforming climate change into an opportunity for regional development



**Data-driven Governance**

**Local Social Communication**

In-depth Identification of Stakeholders and Key Issues

Labor Market (Changes in Employment Structure)

Industry Development (Adaptation to Net Zero Policies)

Livelihood Care (Energy Vulnerability Assessment)

Regional Balance (Spatial Development Strategies)



**Policy Support**

**Employment Guidance**

- Framework Guidelines for Labor Issues
- Various ministries promoting job training and employment guidance measures

**Financial Support**

- Green and Transition Finance
- Green Growth Fund
- Greenhouse Gas Management Fund

**Industry Assistance**

- Net Zero Transition for High Carbon Emission Industries and SMEs
- Matching Supply and Demand for Green Talent

**Social Safety**

- Design Guidelines for Supporting Disadvantaged Groups
- Ensuring Fair Development Opportunities for Indigenous People, Women, and Other Groups

# V. Financial Planning

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# Financial Planning



Government Funding Investment



Driving Private Sector Investment



Expanding Net Zero Carbon Emission Budget



Increasing Government Green Spending



Strengthening Government Incentive Measures



Promoting Green and Transition Finance

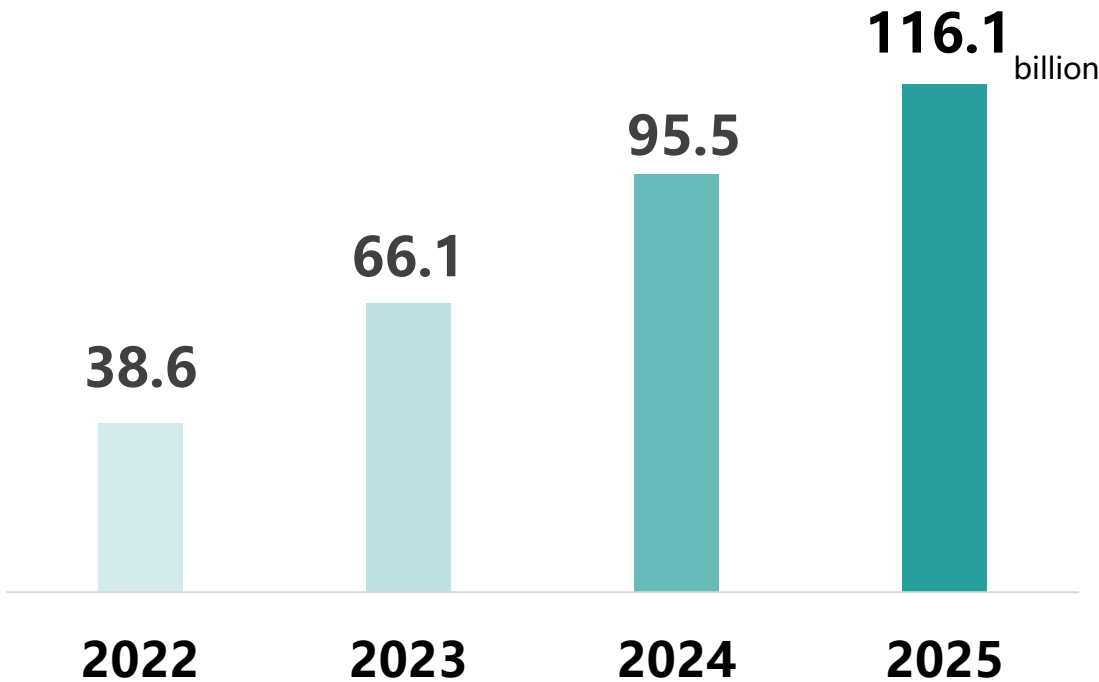
# Net-Zero Carbon Emission Budget Planning



By 2030, government budget investment will exceed NT\$1 trillion

- The budget for the 12 key strategic action plans for net-zero transition will increase year by year, reaching NT\$116.1 billion by 2025.
- An additional NT\$231.023 billion budget for the six major sectors' carbon reduction flagship projects.

12 key strategic action plan budgets



|  |                            |                             |
|--|----------------------------|-----------------------------|
|  | Energy                     | 86.451 billion<br>2024~2030 |
|  | Manufacturing              | 50.020 billion<br>2026~2030 |
|  | Residential and Commercial | 19.200 billion<br>2026~2030 |
|  | Transportation             | 41.188 billion<br>2025~2030 |
|  | Agricultural               | 7.785 billion<br>2026~2030  |
|  | Environmental              | 26.379 billion<br>2024~2030 |

# Expand Government Green Spending



## Green Budget Spending

### Develop Net Zero Green Guideline Principles

1. Public Infrastructure
2. Social Development
3. Technological Development
4. Non-planned

#### Public Construction

- By 2030, public construction green funding will reach NT\$160 billion
- Public construction will account for 20%

Establish 7 categories of "Carbon Reduction Operational Reference Guidelines" (for construction, water conservancy, soil and water conservation, national highways, provincial roads, railroads, and sewers)

#### Government Procurement

- By 2030, total green procurement (public and private) will reach NT\$165 billion
- The government business expense share and the amount managed by the private sector will increase by 10% annually

Amend the "Government Green Procurement Performance Evaluation Method" to implement the "Government Priority Procurement of Environmentally Protective Products"

Note: Green funding refers to expenses for green construction methods, green materials, green energy, green environment, etc.

## Green Growth Fund + Carbon Fees

### Green Growth Fund

Total funding of NT\$10 billion, strengthening investment in net-zero sustainable emerging industries, guiding private sector investment



The maximum investment amount per single enterprise is NT\$150 million



Domestic enterprises + foreign enterprises operating in Taiwan

### Greenhouse Gas Management Fund

- Carbon fee revenue will be included in the GHG Management Fund and will be prioritized for GHG reduction work, subsidies, and rewards for businesses investing in GHG reduction technology, climate change adaptation, etc.

# Guide Private Sector Investment



## Strengthen Government Incentive Measures

### Trillion NT Dollar Investment National Development Plan

Establish public-private partnership platforms to guide **private participation** in green energy and other public infrastructure

### National Credit Guarantee Mechanism

Increase the guarantee ratio to 80%, providing **NT\$90 billion in guarantee capacity** to promote green energy and other major infrastructure projects

### ESCO Performance Credit Guarantee

Increase the guarantee ratio to 95%, providing **NT\$10 billion in guarantee capacity**, expanding the depth of energy-saving capabilities

### Tax Incentives: Amend Article 10-1 of the Statute for Industrial Innovation

Increase the investment expenditure cap to **NT\$2 billion**, and include **energy-saving and carbon-reduction projects** in the scope of applicability



## Green and Transition Finance Action Plan

### Local Banks' Loans to Green Industries

Loan balance reaches **NT\$3 trillion** (as of November 2024)

### Issuance of Sustainable Development Bonds

Cumulative issuance reaches **NT\$688.5 billion** (as of January 20, 2025)

### Insurance Industry Investment in Green Energy

Investment amount: **NT\$160.5 billion** (as of November 2024)

**By 2030, green investment and financing will exceed NT\$5 trillion**

# VI. Expected Benefits



# Expected Benefits

## Deepening Four Major Transitions

Energy Transition  
More Diverse

Industry Transition  
More Innovative

Lifestyle Transition  
More Low-Carbon

Social Transition More  
Resilient

## Driving Green Growth



## By 2030



### Providing Low-Carbon Energy

Power emission factor will decrease from 0.490 kg CO<sub>2</sub>e/kWh in 2023 to 0.319 kg CO<sub>2</sub>e/kWh in 2030

Air pollution will be reduced by 40% compared to 2019



### Increasing Energy Self-Sufficiency

Dependence on imported energy will decrease from 96.2% in 2025 to 90%



### Creating a Green Economy

Government budget input will exceed NT\$1 trillion

Drive NT\$5 trillion in private sector investment

80,000 green-collar talents trained

**Thank you**