Major Environmental Policies
Ministry Of Environment, R. O. C (Taiwan)
https://www.moenv.gov.tw/

Climate Change

Application Begins for Self-Determined Reduction Plans Alongside Carbon Fee System

***The carbon fee system has been launched officially this year. The Regulations Governing the Collection of Carbon Fees* (碳費收費辦法) specify that those subject to carbon fees are required to determine their greenhouse gas (GHG) emissions in 2025 by May 2026 and pay the fees accordingly. MOENV, revealed that a survey indicated that nearly 80% of those subjects to carbon fees are willing to propose their specified reduction goals by 2030 and apply for self-determined reduction plans to qualify for the premium rates of NT$50 or NT$100 per metric ton of CO_2e. The MOENV pointed out that, according to the Regulations Governing Self-Determined Reduction Plans (自主減量計畫管理辦法), enterprises are to file applications of self-determined reduction plans by 30 June 2025 in order to become eligible for the premium rates when registering and paying the 2025 carbon fees in 2026.**

Not aiming for a financial purpose, the carbon fee system is a tool to encourage CO_2 reduction. Instead of increasing the government's revenues, the MOENV aims to accelerate carbon reduction and facilitate industrial transitions through the specified reduction goals by 2030 and self-determined reduction plans proposed by those subjects to carbon fee collection. To help them familiarize themselves with the carbon fee system, a total of 12 meetings, both individually and jointly with the Ministry of Economic Affairs (MOEA), were organized with nearly 4,000 people attending in person or online. MOENV mentioned that they have begun to take in applications of self-determined reduction plans. Those subject to carbon fees are to register a user account at the Carbon Fee Collection System Management Platform (**碳費徵收系統管理平台**) and uploadinformation regarding their self-determine reduction plans onto the platform before filing the applications to the MOENV.

The MOENV expressed that they will put together a review board by inviting the central industry competent authorities to conduct reviews on self-determined reduction plans according to the Regulations Governing Self-Determined Reduction Plans. If necessary, experts will be hired

to help with the reviews. The decision of approval or not will be finalized based on review results within three months. The MOENV has simultaneously also started selecting members for the review board, which will have a meeting every month in principle based on application progresses of self-determined reduction plans.

In addition, the MOEA added the energy conservation and carbon reduction as investment tax credits in the Statute for Industrial Innovation (**產業創新條例**) to reduce the investment burdens for those implementing self-determined reduction plans. A consultation mechanism has been initiated to provide professional industrial and technical consultation and guidance, helping business apply for self-determined reduction plans and become eligible for premium rates. This is to reduce impacts of carbon fee collection on development of Taiwan's industries and ensure their edges in the international competitions while they achieve substantial reduction.

W*ater* **Q***uality*

Regulations Governing Water Pollution Control Fees Amended to Promote Green Transition

On 31 March 2025, the Ministry of Environment (MOENV) announced amendments to the"Regulations Governing the Collection of Water Pollution Control Fees from Enterprises and Sew-age System Operators", (事業及污水下水道系統水污染防治費收費辦法) aimed at encouraging businesses to reduce CO_2 emissions. The amendments cover fee rate adjustments for substanc-es hazardous to health, such as ammonia, zinc and tin, to be subject to control fee collection, along with measures to offset emissions by converting waste to reusable resources or energy, towards achieving the goal of green transition.

I.Fee rates are rationalized to follow polluter pay principle

The MOENV stated that after comprehensive discussions and study of the latest wastewater/sewage treatment and control costs, a number of substances hazardous to health commonly found in the wastewater of specific industries, such as lead, nickel, copper, total mercury, arsenic and cyanites, were selected for fee rate rationalization, so as to meet the "polluters pays principle", and to encourage businesses with large discharge volumes to assume greater responsibility and provide them with more incentives to reduce pollution.

In addition, because in recent years amendments have tightened the Effluents Standards (**放流水標準**), ammonia nitrogen and discharges thereof have been added to the control list. Control standards for ammonia nitrogen control are commonly not met and these compounds are frequently found in polluted sections of water bodies. Ammonia nitrogen is hazardous to aquatic life and is a precursor for eutrophication. Meanwhile, zinc and tin are heavy metals that accumulate in the human body. Thus, ammonia nitrogen, zinc and tin have

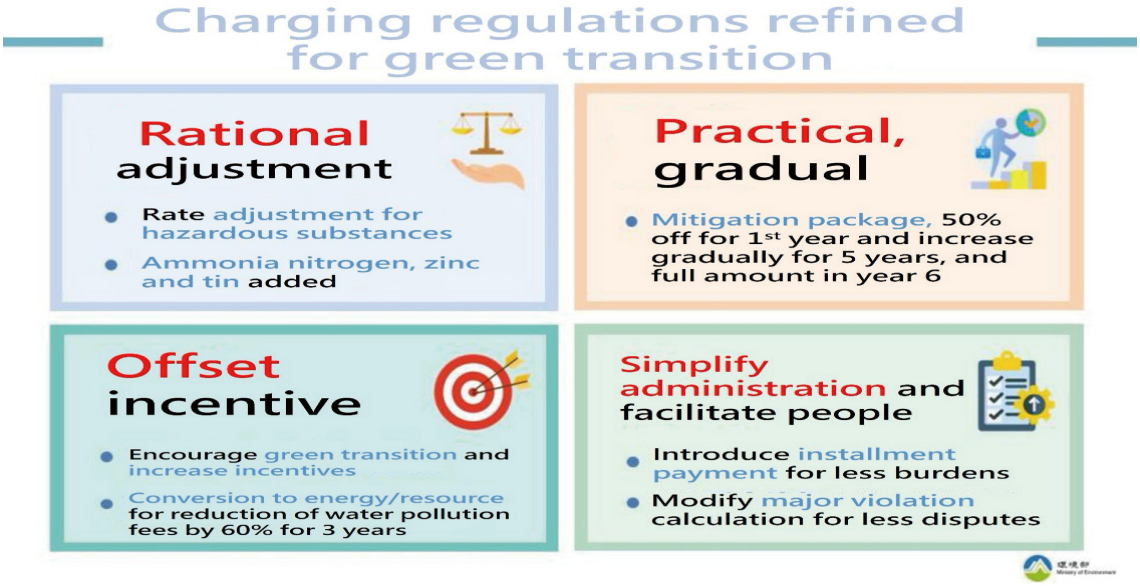
been added for fee collection, with a rate of NT$40/kg for ammonia nitrogen, and NT$1,000 for zinc and tin effective for the first year after the amendment.

II.Rates to be increased gradually in phases to minimize impacts; only a handful of businesses will be affected

The MOENV stated the adjusted fee rates and new fee items are expected to take effect in 2026. To mitigate impacts on businesses, the fees will be given a 50% discount on the full rate in the first year, with the discount gradually decreasing yearly, until the full rates are charged in the sixth year. A closer look at the fee rate adjustment showed that only 2,200 businesses will be affected, most of them being sewage system operators of industrial or science parks, wafer foundries/semiconductor manufacturers, power plants, PCB manufacturers and electroplating businesses. The number of affected businesses and amounts collected will be limited. In the first year after the amendment, for 90% of those subject to pollution control fees, their fees will increase by less than NT$20,000.

III.Investment offsets and promotion of green transition

To further encourage action toward global net-zero, a scheme for earning offsets by investing in wastewater treatment equipment was also included in this amendment. Say a company is considering investing in a new wastewater treatment facility to enable the recovery of energy or reusable resources, for example: a papermill introduces anaerobic treatment to collect methane for power generation and circular economy benefits; or, a semiconductor manufacturer recovers high-concentration ammonia from wastewater and converts the recovered waste into useful resources. Such enterprises may prepare the required documents and apply to the MOENV or local environmental protection bureau for water pollution fee offsets. The offsets can be as much as 60% of the current fees for up to three years. It is hoped that wastewater treatment can also contribute to power generation in addition to resource recovery, encouraging more businesses to invest in conversion facilities and drive the green transition in the industrial sector.



■ *Amendments to Regulations Governing the Collection of Water Pollution Control Fees from Enterprises and Sewage System Operators*

MOENV Holds Meeting on Net-Zero, Sustainable Green Living to Discuss Climate Solutions with the Public

To reach the new national carbon reduction goals and implement Taiwan's Comprehensive Carbon Reduction Action Plan, the MOENV held the Net-Zero and Sustainable Green Living meeting on 16 April to communicate with the public regarding flagship carbon reduction pro-jects. This meeting, co-hosted by Dr. Lin Tze-Luen, Executive Director of the Office of Energy and Carbon Reduction under the Executive Yuan, and the MOENV Deputy Minister Shih Wen-Chen, brought together representatives from the Ministry of the Interior (MOI), the Ministry of Transportation and Communications (MOTC), the Ministry of Economic Affairs (MOEA), the Ministry of Agriculture (MOA), and the Ministry of Education (MOE), along with those from various industries, academic and research communities, and civil organizations. The event opened dialogues and opportunities for collaboration among different fields as attendees ex-changed ideas on policy initiatives and built consensus on net zero.

In his opening speech, the MOENV Minister Peng Chi-Ming stated that on 23 January 2025 the Presidential Office convened the third meeting of the National Climate Change Committee and declared that Taiwan's reduction goal for 2035 is set at 38±2%. In response, government agencies have proposed flagship reduction plans to intensify reduction efforts. Minister Peng emphasized that carbon reduction is not solely industries' responsibility but also requires the collective effort of all citizens who need guidance to make behavioral changes in every area from daily life to consumption. He hoped that the meeting would serve as a platform to gather diverse and creative ideas and harness collective wisdom so the action plans can be executed faster and in a systematic and thoughtful manner and that Taiwan will leap ahead in its net-zero progress.

This meeting was the six ministries' first public engagement session for their flagship carbon reduction plans with extensive discussions particularly on "net-zero, sustainable living. It started with the MOENV briefing on the draft of its flagship plan, explaining how it will guide the public to take low-carbon actions in their daily lives through policy tools, economic incentives, and demonstration projects. The draft flagship carbon reduction action plan includes five key directions:

I.Subsidies for insulation in existing residential buildings: *Enhance energy conservation in school facilities and condominiums.*

II.Assistance toward low-carbon transitions among restaurants: *Promote zero-waste and low-carbon diets and subsidize restaurants to install facilities necessary for low-carbon transitions.*

III.Support for innovative low-carbon

lifestyles: *Promote the green point collection program, set up carbon accounts, and install areas to demonstrate green living.*

IV.Expansion of Green Marks and Green Procurement: *Optimize criteria for Green Mark products and improve green procurement guidelines for public infrastructure projects.*

V.Low-carbon sustainable community certification and resilient homeland development: *Assist village and neighborhood certification and provide training for relevant personnel while supporting local governments in carrying out reduction measures.*

Apart from policy briefings, the forum featured three guest speakers presenting actual cases. Professor Liu Hsiu-hui from National Kaohsiung University of Hospitality and Tourism shared experiences in promoting green restaurants and meal boxes as well as relevant evaluation and assistance. Manager Lin Meng-shao from Carrefour introduced how its implementation of food transition program has resulted in encouraging consumers to adopt net-zero behaviors. Finally, Professor Chou Su-ching from National Taiwan University talked about innovative cases of communities and civic groups' participation in sandbox trials, which has led to bottom-up transition and social engagement and showcased the private sector's strength and diverse approaches in low-carbon actions.

Participants enthusiastically spoke up to provide suggestions on practical experiences and measures of net-zero, sustainable green living, feasibility of energy-saving measures for buildings, designs that enhance citizens' participation and drive behavior changes, mechanisms for cooperation between the public and private sectors, and needed resources, as well as education promotion. This meeting reached consensus on several points, including that it is necessary for the flagship plan for a net-zero, sustainable green living to develop measurable indicators that address varying scales, stages, and targets. These indicators will help establish a system that supports green living initiatives and interface integration and therefore facilitate lifestyle transition collectively with communities, economic forces, and enterprises. The MOENV will compile all feedback to optimize and review subsequent measures on a rolling basis.

This meeting, broadcast live in real-time on the Open Climate Information Platform, was attended by nearly 350 people, including those present at the venue. This reflects the public's strong interest in net-zero, sustainable green living. MOENV stated that it will keep intensifying policy transparency, expand social participation, and integrate feedback through social engagement mechanisms, while promoting more inclusive and effective reduction policies to build a net-zero, sustainable green living that can be jointly achieved by all citizens.

■ *Representatives from industries, government, academia, research, and civil organizations exchange opinions and build consensus on achieving net zero*

■ *Minister Peng delivers a speech.*

Air Quality

Expanded Public Participation in "AIR 2025: Smart Cities – Sustainable and Clean Air Technology Innovation Forum" Helps Set Future Clean Air Policies

On 24-25 February 2025, the Ministry of Environment (MOENV) held the "AIR 2025: Smart Cities – Sustainable and Clean Air Technology Innovation Forum" in Taipei City. The officials and experts from Japan's Ministry of the Environment and the South Coast Air Quality Management District (SCAQMD) of California, USA, were invited to share their insights on air pollution management and their experiences in developing AI technology. An in-depth discussion on improving air quality issues of public concern took place to stimulate innovative thinking for the upcoming new white paper on air quality policy.

In his opening speech, MOENV Minister Peng Chi-Ming stated:

"The 2030 net greenhouse gas emission reduction goal has been established, set at a reduction of 28±2 % compared to 2005. The impacts and benefits of CO2 reduction on air pollution should be assessed, while the target for PM2.5 is an annual average concentration of 10 mg/m3 or lower. Changes in people's habits play an important role. This forum will use "Wishing Well" and "World Café" formats to gather comments, which will show how participants from the public expect better cooperation between government and the private sector. It is also recognized that policies promoted need solid scientific foundations. To respond to these needs, the MOENV will establish an artificial intelligence and data governance center and an air quality monitoring and forecast center to improve air pollution AI environmental governance and move toward sustainable net-zero and intelligent green energy development."

MOENV pointed out the two major emphases of this forum:

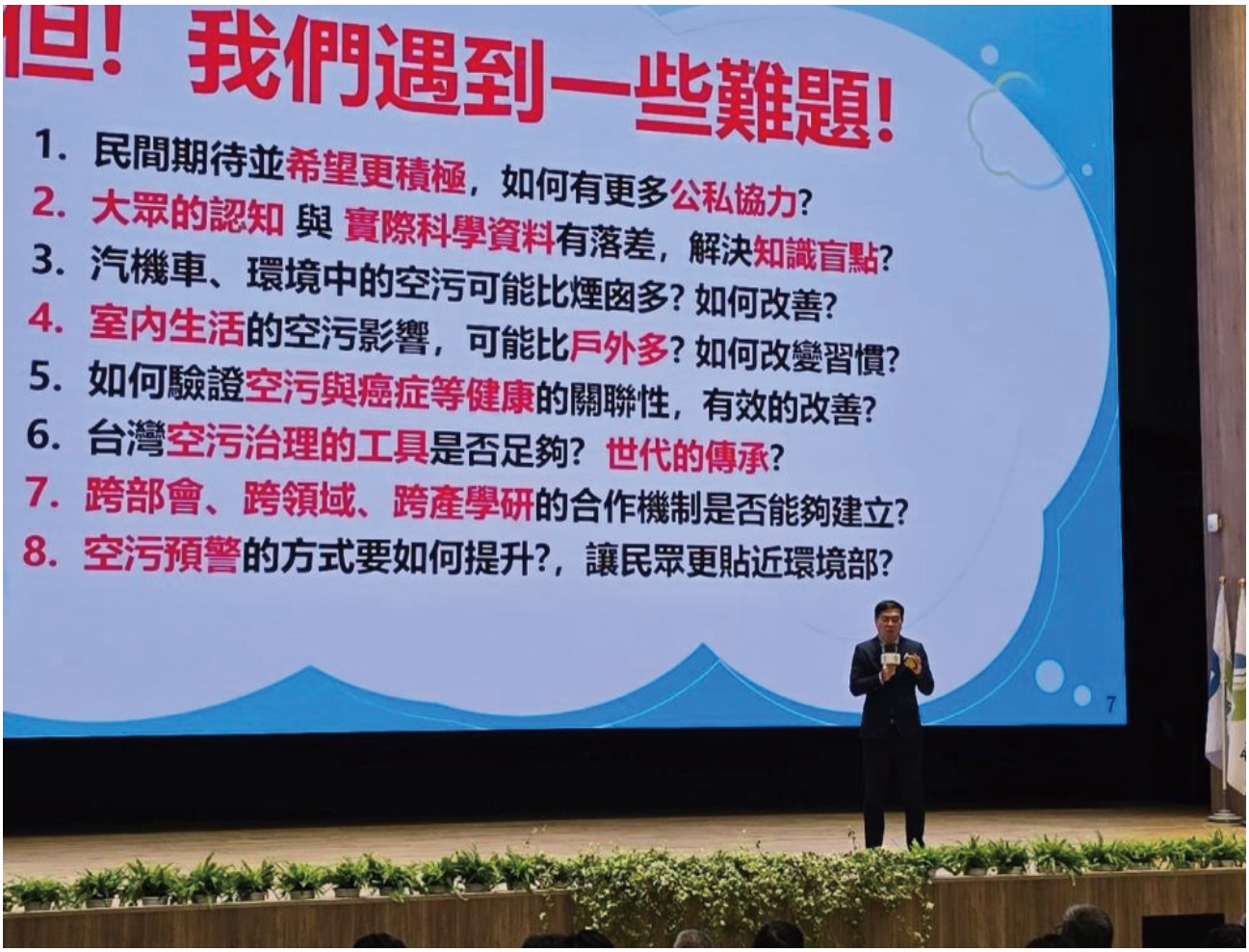
I.Introduction of new international knowledge: *Officials and experts from Japan and the USA were invited, including Mr. Suki Kuroda of the Environmental Management Division of Japan's Ministry of the Environment; Mr. Sam Wang, Program Supervisor of SCAQMD; Dr. Greg Carmichael from the University of Iowa; Dr. Johsua Fu from the University of Tennessee; and Dr. Nga Lee (Sally) Ng from the Georgia Institute of Technology. The experts shared their insights on analysis of atmospheric composition, aerosol formation mechanisms, experiences in pollution control and the application of AI technology. The latest technology and policy developments in air pollution governance were discussed to help optimize governance strategies.*

II.Greater public participation: *Based on the comments collected from sessions "Good air wishing well" and "Good air world café", the MOENV divided the topics for the forum according to four aspects: "air quality management", "industrial air pollution management", "transportation air pollution management" and "daily life and fugitive air pollution management". Experts, civic groups, business representatives and government agencies were invited to focus*

on and discuss the future blueprint for air quality policy.

The MOENV indicated that comments have been successfully collected through events such as the “Good air wishing well” and the “Good air world café”, and today’s forum was a big step toward converting ideas from the public into solid policies. Looking to the future, the new air quality policy white paper will be composed of serve as the core document guiding third stage air pollution control solutions. Policy performance will be assessed periodically to ensure the continuous improvement of air quality.

MOENV appreciates the input of all who participated and expects the results of this forum will help create a healthier and more livable environment in Taiwan and fulfill a clean air vision for all to share.



■ *Minister Peng Chi-Ming is giving his opening speech at the forum.*

■ *The participants of the Smart Cities – Sustainable and Clean Air Technology Innovation Forum held on 24 February 2025.*

Climate Change

MOENV Announces Emission Sources for Enterprises Subject to Inventory

Carbon inventory is the foundation of carbon reduction. The MOENV released the goals for the regulatory stages of greenhouse gas emissions for 2030 by the end of 2024, as well as announced the expansion of inventory. The scope, originally covering energy and manufacturing sectors, now includes residential, commercial and transportation sectors and combines various assistance measures and intense energy efficiency to accelerate reduction efforts. The MOENV indicates that the Enterprise Emission Sources Subject to Inventory and Registration of Greenhouse Gas Emissions (事業應盤查登錄溫室氣體排放量之排放源) have been promulgated on 4 March after going through preannouncement, discussions and incorporation of public opinions. Starting from 2026, enterprises in service industry and transportation, hospitals and medical institutes, colleges and universities, and small and medium-sized manufacturers with high demands for electricity, oil, or other fossil fuels are required to conduct and register their own carbon emissions of the previous year by every 30 April. It is stressed that inventory scope has been expanded to increase the reduction efforts in all major sectors with the principle of no hustle, no outsourcing, no verification and no carbon fees.

The MOENV points out that approximately 500 more enterprises are expected to be included under this expansion, and they may determine if they are potentially subject to inventory based on the energy audit registration data of 2024,

number of vehicles or storefronts. Actual determination, however, is based on energy use, number of storefronts, number of vehicles, or hospital assessment results of the previous year of the one with mandatory inventory and registration. An enterprise is also determined subject to inventory if it meets the required conditions above in that year. The MOENV will request all industry competent authorities to help with determination and assistance for enterprises in conducting inventory and registration. For enterprises that are not manufacturing and hospitality industries or hospitals, inventory and registration shall be conducted by headquarters or universities for their branch companies, branch stores, branch offices, appointed or franchise stores, schools and campuses.

I.Information service industry, department stores, shopping centers, wholesale stores, railway transportation, mass transit systems and universities: *Enterprises whose annual purchase of electricity exceeds 20 million kWh or more; or enterprises with a single venue whose annual purchase of electricity exceeds 10 million kWh or more.*

II.Hospitality industry: *Enterprises with a single venue whose annual purchase of electricity exceeds 10 million kWh or more.*

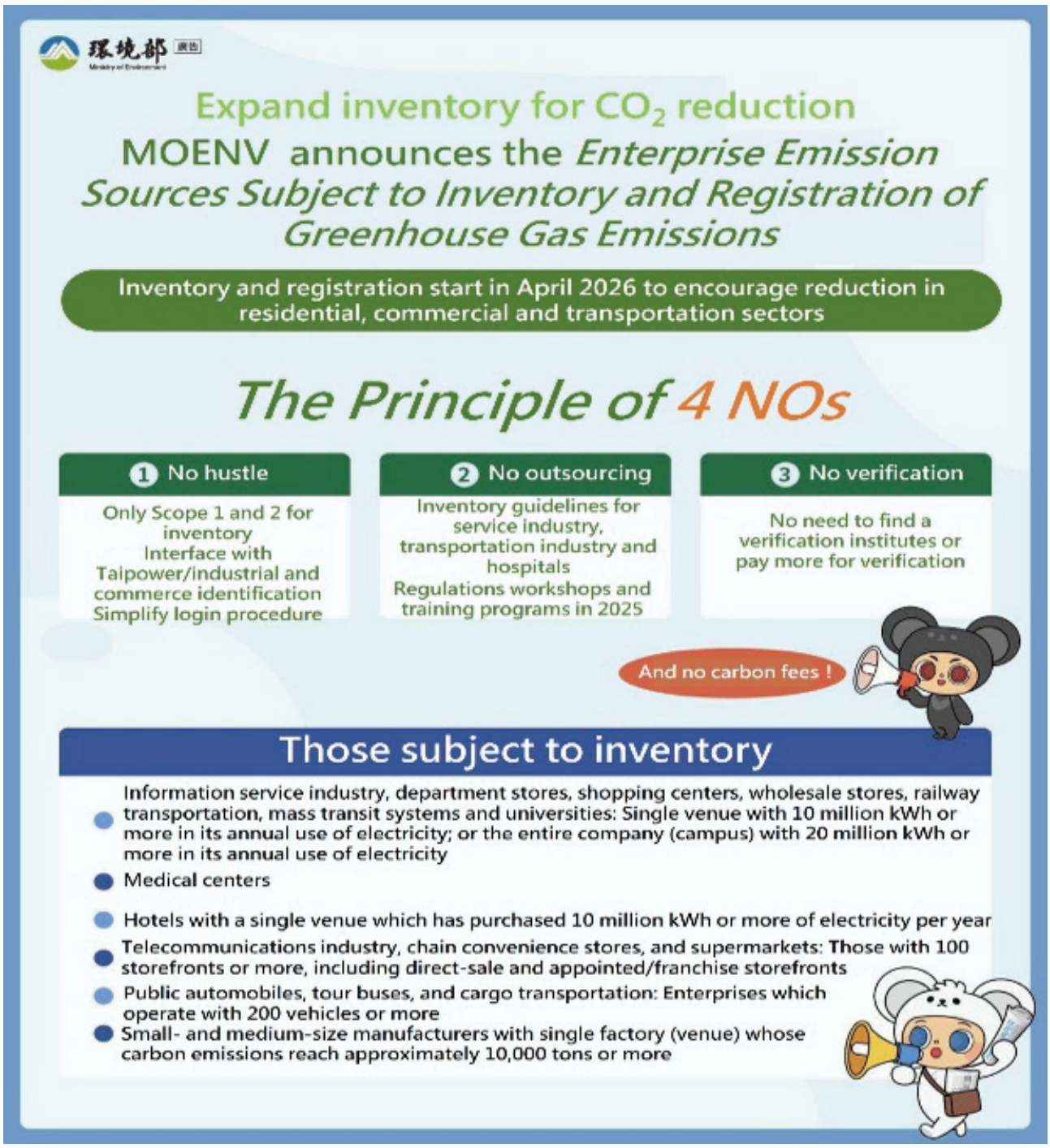
III.Telecommunications industry, chain convenience stores, and supermarkets: *Enterprises with 100 storefronts or more, including direct-sale and appointed/ franchise storefronts.*

IV.Hospitals: *Enterprises identified as medical centers by the Ministry of Health and Welfare in the hospital accreditations.*

V.Vehicle transportation: *Enterprises in highway automobile transportation, metropolitan automobile transportation, tourist bus transportation, automobile cargo transportation, or automobile cargo transportation within designated routes which operate with 200 vehicles or more.*

VI.Manufacturing: *Entire factory (venue) with facility whose energy use meets one of the following conditions, which are 4,000 tons or more in annual use of coal; 3,200 kiloliters or more in annual use of burning fuels; five million m3 or more of annual use of natural gas; 10 million kcal/hour or more for the total design or actual heat input of combustion facilities with the same one exhaust; or 20 million kWh or more of annual purchase of electricity for the entire factory (facility).*

The “` Nos” principle was adopted in the MOENV’s announcements of those subject to inventory and registration. The calculation tool is provided on the Mandatory Greenhouse Gas Reporting System, suitable for those subjects to inventory and registration that mostly operate on electricity. The system is designed to interface with Taipower’s power usage data, allowing enterprises to log in with its industrial commerce identification card and conduct inventory only under Scope 1 and 2 without increasing their burdens. Additional efforts later this year include a series of workshops regarding regulations and training programs as well as editing and publishing of inventory guidelines for service industry, transportation industry and hospitals to assist enterprises in conducting inventory. The MOENV will commend enterprises active in reduction and encourage environmentally friendly enterprises with excellent performances.



■ *Targets and relevant measures under the promulgated Enterprise Emission Sources Subject to Inventory and Registration of Greenhouse Gas Emissions*

NT$10 billion from National Development Fund to be Guided by "Operating Directives for Strengthening Investment in the Green Growth Net-Zero Industry"

The Ministry of Environment (MOENV) proposed the "National Development Fund's implementation project for strengthening investments in the green growth net-zero industry" (行政院國家發展基金加強投資綠色成長淨零產業實施方案) as part of the goals towards "Green growth and 2050 net-zero emissions" stated in the President's National Project of Hope. The Directives were approved by the National Development Fund (NDF) on 29 November 2024, including a request for NT$10 billion to be invested into net-zero sustainable emerging industries. The MOENV collected feedback from the public on details of how the investment project can be executed, then on 4 February 2025 promulgated the "Operating Directives for Strengthening Investment in the Green Growth Net-Zero Industry, Ministry of Environment" (環境部辦理加強投資綠色成長淨零產業實施方案作業要點). Meanwhile, a project office and a trust account were established to invite investors via a series of presentations, aiming to start receiving investment applications in Q2 2025.

The MOENV explained that the Operating Directives are based on those of other investment projects under the NDF, specifying details such as the establishment of trust accounts and project offices, investment eligibility, documents required for selection, co-investment principles and procedures, requirements for management fees and performance bonus payments, supervisory management mechanisms for the investee businesses, obligations and responsibilities placed upon co-investors, and periodical reporting to the NDF.

The MOENV pointed out that more feedback will be collected from venture capitalists, industrial associations and competent authorities, then workshops will be scheduled to accelerate national carbon reduction efforts, improve incentives, enhance feasibility of investments and achieve the goals of green growth and transition to net-zero. By incorporating key suggestions, the mechanism for strengthening the Operating Directives, which aims to incorporate key suggestions, as compared to other NDF projects, is explained as follows:

I.Investment targets (investees) include non-listed domestic firms engaged in emerging businesses in net-zero and sustainability, and foreign firms with substantial business activities in Taiwan. The total investment amount shall not exceed NT$150 million for a single company or NT$100 million for a single investment.

II.Regarding co-investments and their proportions, the co-investor shall place its investment together with the dedicated trust account, and the amount shall not be lower than that invested through the account. Also, considering the foundation that has been set

for Taiwan's net-zero technology development, six priority investment targets are specified, with the amount of co-investment to be no less than a half the amount invested through the trust account. In addition, if the cooperation is with or entrusted to a central competent authority of the target industry or technology, or it is an investment case for an approved research program, the co-investment amount may be no less than 1/3 of the amount invested through the trust account. Investment recipients may include:

1.Investment in the emerging industry of resource circulation.

2.Investment in the emerging industry of sustainable and forward-looking energy technology development and technical energy storage.

3.Investment in the emerging industry of energy efficiency improvement.

4.Investment in the emerging carbon capture and reuse, and negative carbon technology development.

5.Investment in the emerging industry of digital, low/reduced-carbon technology development.

6.Investment in the emerging industry of climate change adaptation technology development.

III.Regarding eligibility of co-investors, the project is designed to attract venture capital for co-investment, as the business ecosystem for start-ups is developing in Taiwan and a variety of incubating entities and accelerators are entering the market to help startup businesses in addition to traditional venture capitalists, not to mention financial institutes and legal persons with an investment accelerator. A reasonable number of projects to be invested in by co-investors is established for flexibility of operations. An outstanding co-investor merit system has been developed for co-investors with good investment records, encouraging and incentivizing co-investors to look for appropriate projects to invest in

IV.Regarding strengthened functions of the project office, the office provides investment matching services and has resources to provide guidance for emerging net-zero businesses that have funding needs, to help them find much-needed funds or investors. The office also provides connections to financing, marketing, and management professionals, helps to build net-zero and CO_2 reduction expert guidance and consultation mechanisms, and eliminates hurdles that obstruct the commercialization of innovative technologies.

V.Regarding investment management, visits and evaluations by experts specializing in various fields can be arranged to lower investment risks at the pre-investment stage, depending on the maturity of the business/company being invested in. In the post-investment stage, a management mechanism is established to monitor the business and financial operations of entities invested in, according to category. In addition, participation in board meetings of investee companies is requested to monitor their business operations and strengthen supervisory and management mechanisms.

MOENV added that a project office and a trust fund will be set up, co-investors selected, and presentations organized for a campaign. All interested parties are welcome to join these efforts to develop Taiwan's net-zero innovative technologies and start new green growth for Taiwan.

RCA Promulgates Amended Guidelines for Loan Credit and Subsidies for Recyclable Wastes Recycling and Disposal Enterprises

The MOENV's Resource Circulation Administration (RCA) has promulgated the Guidelines of Loan Credit Guarantee and Interest Subsidies for Recyclable Waste Recycling and Disposal Enterprises (應回收廢棄物回收處理業專案貸款信用保證及利息補貼實施要點) on 1 January 2023. The purpose is to enhance automation processes and pollution control equipment performance for recycling and disposal enterprises dealing with recyclable wastes and help them purchase equipment and remove financing obstacles. The RCA works with the Small and Medium Enterprise Credit Guarantee Fund of Taiwan (TSMEG) to establish the respective guarantee funds, introduce the loan credit guarantee mechanism is introduced to help enterprises finance equipment purchases. Incentives are provided in the form of interest subsidies as well so that enterprises can speed up technological upgrades.

The RCA indicates that this amendment aims to better facilitate transition for the resource circulation industry, hence expanding the scope of loan applicants and adding recycling and disposal industries and enterprises that form alliances with other industries to enhance quality and purposes of recycled materials. Also, new uses for loans are added, including expenditures required to purchase smart, low-carbon production machinery and equipment for refining recycled materials, green energy-using, low-carbon equipment or that with high-value applications, and equipment for fire and disaster prevention and safety protection to facilitate equipment upgrades and improve factory safety. The promulgation was made on 18 March 2025 on the letter numbered Huan Xuen Ji 1146104011.

Up to 90% can be guaranteed for loan credits and a loan can be taken out at NT$50 million maximum with a term of 5 years, the longest. The maximum grace period for principal is 2 years. In addition, businesses eligible for the loan may enjoy interest subsidies for up to 5 years, which is the annual loan interest rate at 1% each year. It is expected to reduce enterprises' financial burden and further enhance the competitive edge of Taiwan's resource recycling industry.

International Cooperation

Sweden's Path to Carbon Reduction: Taiwan and Sweden Exchange on Carbon Tax and the ETS System

On 23 April 2025, the MOENV Minister Peng Chi-Ming invited Helena Reitberger, Representative of the Swedish Trade and Invest Council, along with experts from the Swedish Tax Agency, Martin Solvinger and Mattias Qvist, to talk in a seminar titled "Carbon Reduction Experiences: A Dialogue among Industries, Government, and Academia, and the Dual Practice of Carbon Tax and ETS". Conducted in a hybrid format with both in-person and online participation, the seminar focused on Sweden's dual practice of its own carbon tax and European Union's Emissions Trading System (ETS), highlighting communication among stakeholders involved in reduction policies, and reduction results achieved by collaboration across industries, government, and academia. Sweden's experience offers valuable insights for the development of a carbon pricing system in our country.

Representative Helena Reitberger emphasized that since 1990 Sweden has succeeded in reducing carbon emissions by 37% and doubling its economic scale. This success is attributed to Sweden's near-zero carbon energy structure, its carbon tax system implemented since 1991, and its innovative commercial department. The data provided by Martin Solvinger, Senior Strategist at the Swedish Tax Agency, further demonstrated the positive correlation between GDP growth and emission reductions.

Sweden's carbon tax and the EU's ETS are a dual mechanism of carbon pricing and operate alongside one another in Sweden. The carbon tax primarily targets sectors and emission sources not covered by the ETS, while the ETS applies to energy-intensive industries. This dual system is designed to comprehensively price carbon emissions while taking into consideration characteristics and reduction costs of different industries. Swedish experts pointed out that in recent years Sweden's policy direction has shifted more toward the ETS, leading to adjustments in the role of the carbon tax accordingly.

Minister Peng explained to Helena Reitberger that Taiwan has launched the carbon fee system this year. However, due to the impact of the United States' customs policy and withdrawal from the Paris Climate Accord, domestic enterprises are facing pressure from carbon tax collection. Minister Peng emphasized that the carbon fee system will remain in place and that Taiwan has already begun planning to introduce the ETS system soon and will aim toward dual implementation of both the carbon fee and ETS systems. Therefore, Sweden's experience with both the carbon tax and ETS system is valuable for Taiwan to study.

Sweden's Tri-Communication model for carbon reduction strategies emphasizes respectful dialogues among the government, institutions, academia, enterprises, labor unions, and civil society

to support and advance sustainable development. Although this approach requires more time in communication, it has become deeply embedded in Sweden's way of working. Through this exchange, Taiwan has gained a deeper understanding of Sweden's reduction strategies and practical experiences, which will serve as valuable references for Taiwan in formulating relevant policies. In the future, Taiwan will continue to engage in exchanges with Sweden.

■ *Minister Peng invites Helena Reitberger, Representative of the Swedish Trade and Invest Council to share Sweden's carbon reduction experiences*

■ *Group photo of Minister Peng and Helena Reitberger, Representative of the Swedish Trade and Invest Council (second from the left), taken after the talk*

International Cooperation

Ministry of Environment and Global enabling Sustainability Initiative (GeSI) sign MOU for Green Digitalization and Net-Zero Opportunities

The Ministry of Environment (MOENV) is working diligently on "digital transition and net-zero transition" to help reach Taiwan's goal of net-zero CO2 emissions by 2050. Thus, on 21 March 2025, MOENV Minister Peng Chi-Ming met with the CEO of the Global enabling Sustainability Initiative (GeSI), Mr. Luís Neves, to sign a MOU on cooperating to create new opportunities for green digitalization and net zero, to focus on accelerating Taiwan's sustainable development through green digital solutions, and to create a win-win for environmental sustainability and economic growth.

Minister Peng said in his speech that digital technology is always a key driver for moving sustainable development forward as the world faces the challenges of global climate change. GeSI, a global alliance of leaders in information and communications technology (ICT) industries, has been working with the European Union on multiple projects, particularly in dealing with how to support the EU's Sustainable Development Goals (SDGs) and the European Green Deal with ICT, while providing suggestions about digitalization and sustainable development policies. With this MOU, both the GeSI and the MOENV will work together on the "Net Carbon Impact Assessment Methodology for ICT Solutions" and "Digital with Purpose Performance Framework Certification", which assist Taiwan's ICT industries in playing an active role toward reaching the net-zero goal and help the ICT industry evaluate its ESG (Environmental, Social, Governance) performance. In addition, Taiwan will learn from GeSI's international experience to develop its own voluntary carbon market and intelligent carbon cities, accelerate green digital transition, resolve environmental problems with innovative technology and create new green economy opportunities.

GeSI CEO Neves noted that Taiwan is a world leader in the ICT industry and is an important hub for technological innovation. GeSI's members come from important ICT enterprises around the world, and the organization has been involved with great progress in the areas of smart cities, artificial intelligence and the digital UNGIH platform under the United Nations Framework Convention on Climate Change (UNFCCC). Witnessing the signing of the MOU were Iris Liu, Vice GM of Taiwan mobile and a board member of GeSI, and Richard Lee, Chairman of Taiwan Electrical and Electronic Manufacturers' Association (TEEMA), also a member of GeSI. The signatories believed that this cooperation would strengthen the international network by bringing GeSI and Taiwan's technical strength together for the development and promotion of sustainable digital solutions and contribute to global sustainable development.

The cooperation between the MOENV

and GeSI will not only accelerate Taiwan's green digital transition, but also help the nation contribute to sustainable development worldwide. With high expectations for the cooperation agreement, both parties will deepen efforts toward "digital and net-zero transitions" and create a brighter, more sustainable future.

■ *Officials at the MOU signing between the Global enabling Sustainability Initiative (GeSI) and the Ministry of Environment – from left to right, Ms. Shih Wen-Chen, Deputy Minister of Environment; Mr. Richard Lee, Chairman of TEEMA; MOENV Minister Peng Chi-Ming; Mr. Luis Neves, CEO of GeSI; Iris Liu, Vice GM of Taiwan Mobile; and Ms. Tsai Lin-Yi, Director General of the Climate Change Administration*

■ *MOENV Minister Peng Chi-Ming (left) and CEO Luís Neves of GeSI displaying the signed copies of the MOU*

International Cooperation

Taiwan Works with ASEAN Countries on Sustainable Governance of Soil and Groundwater

The Environmental Management Administration (EMA) of the Ministry of Environment (MOENV) held the "ASEAN Regional Forum on Soil and Groundwater Challenges: Sustainable Remediation Strategies" on 26 March 2025 at the GIS Taipei Tech Convention Center. Gathering at the forum to explore challenges and cooperation strategies in the field of soil and groundwater environment governance in the ASEAN region and Taiwan, were: officials from the Ministry of Natural Resources and Environment of Thailand; officials from the Ministry of Natural Resources and Environment of Vietnam; researchers from Thailand, Indonesia and Vietnam; environmental protection agencies from Taiwan; industrial and academic representatives, and; foreign and local graduate students in soil and groundwater studies. In addition to the forum, an award ceremony for the "Investigation and Remediation Research Competition" was held to recognize the achievements of outstanding research teams.

Deputy Director General Liu Rui-Hsiang of the EMA outlined in his opening speech how water pollution control, air pollution control and waste disposal in Taiwan started in the 1970s. The "Soil and Groundwater Pollution Remediation Act" (**土壤及地下水污染整治法**) was promulgated in the year 2000, followed by many relevant laws and regulations established in this regard, and pollution prevention and remediation have been promoted effectively through measures such as the collection of pollution control fees. Director General Yen Hsu-Ming indicated that Taiwan has accumulated rich experience in pollution investigation and remediation technology over 20 years. It has kept aligned with international practices through international workshops, technology conferences and guidance committees, and continues to improve its technical capabilities through exchanges, establishing a solid foundation for bilateral and multilateral cooperation centered on Taiwan. This forum facilitated partnership relations among the industrial, governmental and academic sectors by providing in-depth interactions with ASEAN countries, which further increases technical capabilities, improves environmental quality and promotes regional sustainable development goals.

The forum was focused on the challenges of protecting the soil and groundwater environment in Indonesia, Thailand, Vietnam and Taiwan. It advanced understanding of ASEAN partner countries, brought the wisdom of industry, government, and academia together, deepened international cooperation, and expanded Taiwan's influence in the ASEAN region. A research competition roundtable forum was set up to listen to presentations on the innovative achievements of participants in the "Investigation and Remediation Research Competition". Twenty-nine teams entered the competition, with ten selected for the secondary review. These teams presented their projects at the forum. Thanks to

interactions between experts and students, the understanding of environmental governance was deepened and innovative strategies and applications for pollution control were explored. Finally, five winning teams were selected and awarded prizes totaling NT$120,000. Competition combines academics and practice, stimulates innovation and creative thinking, and advances the sustainable development of soil and groundwater environment in ASEAN countries.

The EMA stressed that the sustainability of soil and groundwater resources is a global environmental issue. It is hoped that the interactive platform established at the forum will deepen the partnership with ASEAN countries in the field of protection of soil and groundwater environment and help all work together for a better environment and quality of life.

■ *Director General Yen Hsu-Ming of the EMA giving his speech at the awards ceremony for the Investigation and Remediation Research Competition*

■ *Deputy Director General Liu Rui-Hsiang (front row, 4th from the left) with honored guests of the international forum*

■ *All guests of the international forum*

■ *Investigation and Remediation Research Competition participants at the afternoon roundtable*

■ *Director General Yen Hsu-Ming of the EMA (front row, 6th from left) with award winning teams, review panel members and honored guests*