

Role in Sustainability – Green Production

VisEra considers pollution prevention as one of its top operational responsibilities and strives for environmental sustainability and green production, with the vision of becoming a benchmark enterprise in environmental protection.

Note: For VisEra’s environmental policies and commitments, please refer to VisEra official website / About VisEra / Environment, Safety, and Health.



Acquiring
36,601

Renewable Energy Certificates, which is equivalent to reducing emissions by 18,081 metric tons of CO₂

88.6%

Process water recycling rate in Hsinchu & Longtan Plants

93.57%

Waste recycling rate (including Alternative Energy)

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5.1 Climate Strategy and Greenhouse Gas

5.3 Water Resource Management

5.6 Environmental Protection Expenditures and Investments
- 5.2 Energy Management

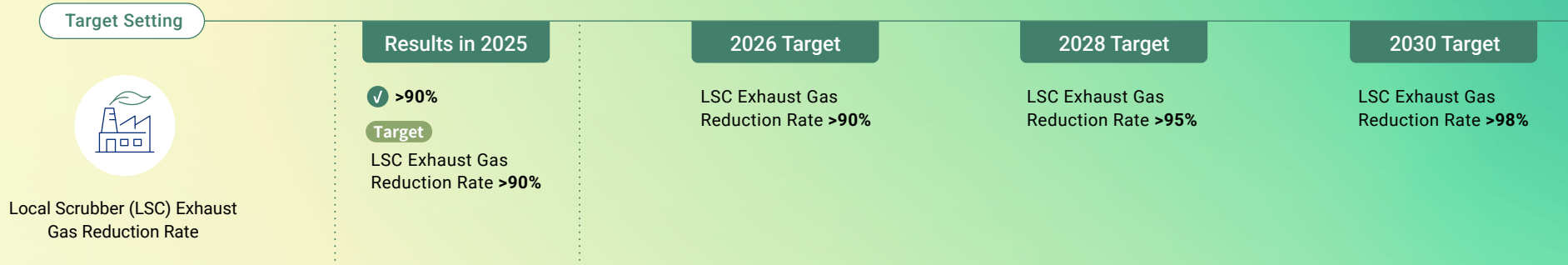
5.4 Waste Management
- 5.5 Air Pollution Prevention

5.7 Biodiversity Conservation and Environmental Education Volunteer Training Action

5.1 Climate Strategy and Greenhouse Gas

Greenhouse Gas Management

Maximize exhaust gas reduction to minimize Scope 1 greenhouse gas emissions.



⬆️ Exceeded
✓ Achieved
⬇️ Missed Target

Communication Channels : Industrial Safety and Environmental Protection Department ESG@viseratech.com



5.1.1 Climate Strategy

In recent years, the pace of global climate change has been rapid, and the impacts are increasingly significant. According to the State of the Global Climate released by the World Meteorological Organization (WMO) at COP30, the period from 2015 to 2025 will become the warmest on record; each year's temperatures will exceed previous records, and greenhouse gas concentrations and ocean heat content reached historical highs in 2024 and continued to rise in 2025. The global average temperature from January to August 2025 was 1.42°C (±0.12°C) higher than pre-industrial levels, highlighting the accelerating trend of climate change.

As the effects of climate change become increasingly apparent, enterprises need to enhance their adaptive capacity to climate risks to maintain operational stability. Since 2022, VisEra's ESG Committee has been identifying climate risks and opportunities every two years based on the Task Force on Climate-related Financial Disclosures (TCFD) framework. ESG Committee reviews international research reports and evaluates climate change risks and response measures, identifying potential risks and opportunities. Based on these assessments, key performance indicators are established to manage goals and effectively track the progress and outcomes of the actions taken, thereby reducing the financial impact of climate risks on operations. ESG Committee focuses on four major risks—"Greenhouse Gas Emissions Cap Control and Carbon Fee Collection/Net-Zero Emissions, Extreme Weather Events such as Typhoons and Floods, Droughts, and Rising Average Temperatures"—and two major opportunities—"Material Conservation Designs and Reduction of Water Usage and Consumption". Considering both internal and external environmental changes, the committee refers to methodologies disclosed by companies worldwide to perform financial impact quantification. Strategies and actions for addressing climate change are developed under the four dimensions of "Governance", "Strategy", "Risk Management", and "Indicators and Targets", aiming to mitigate the impact of climate risks and enhance the organization's climate resilience.

Furthermore, VisEra uses a Risk Map in its Enterprise Risk Management (ERM) system to assess and identify significance. The assessment results showed that the risks associated with climate change include drought, strong typhoons, flooding, earthquakes, power and water shortages, and increasingly stringent regulatory requirements. VisEra conducts training and exercises on mitigation measures through scenario simulation, and regularly reviews risk changes and responses.

Climate-Related Strategy Management Framework

Category	Management Strategy	2025 Execution Results
 Governance	The Board of Directors regularly reviews the risks and opportunities related to climate change. - ESG Committee: Chaired by a senior executive appointed by the chair and supervisor of the Sustainable Development Committee, the ESG Committee regularly reviews the Company's climate change strategies and goals, and reports to the Sustainable Development Committee and the Board of Directors. - Risk Management Steering Committee: It is chaired by the President, the Committee is responsible for the focus of corporate risk management and risk assessment and mitigation, while reporting annually to the Board of Directors on annual corporate risk management, including climate change issues.	- The ESG Committee convenes quarterly to discuss corporate sustainability issues, including strategies for responding to climate change. Matters discussed are recorded as resolutions or pending action items, which are subject to follow-up and improvement. - The Risk Management Steering Committee held a total of 4 meetings, reviewing operational risks such as carbon fees, net-zero emissions, extreme weather events and so on. Response strategies are formulated quarterly and the implementation status is reviewed accordingly.
 Strategy	- The ESG Committee regularly discusses and identifies short-, medium-, and long-term climate-related risks and opportunities. - Assesses the impact of climate risks and opportunities on the organization's operations, strategy, and financial performance. - Conducts scenario analysis to evaluate the resilience of the organization's strategy under various climate scenarios.	- Regarding transition risks, the Company referred to the World Energy Outlook (WEO-2024) released by the IEA and selected the 2050 Net Zero Emission (NZE) Scenario and the very low emissions scenarios in the Shared Socioeconomic Pathways (SSP) 1-1.9 in the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR6) in the scenario analysis to assess the cost required for implementing carbon reduction strategies in the future. - Regarding physical risks, the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), specifically the Shared Socioeconomic Pathways (SSP) scenarios SSP1-2.6 and SSP5-8.5, is used as the foundational database for climate-related risk analysis. These scenarios help assess potential impacts and financial implications that may arise in future operations, and guide the development of corresponding risk management measures.
 Risk Management	- A climate risk identification process is developed every two years using the TCFD framework. - The significance of climate-related risks and opportunities is assessed based on the level of impact and likelihood of occurrence, with corresponding response measures formulated. - The results of climate risk identification and assessment are integrated into the Enterprise Risk Management (ERM) system and are regularly reviewed by senior management.	- ESG Committee evaluated the qualitative and quantitative financial impacts of material climate-related risks and opportunities discussed by relevant departments - A total of 4 major risks were identified—Greenhouse Gas Emissions Cap Control and Carbon Fee Collection/Net-Zero Emissions, Extreme Weather Events such as Typhoons and Floods, Droughts, and Rising Average Temperatures, and 2 major opportunities—Material Conservation Designs and Reduction of Water Usage and Consumption. - The financial impacts of the identified major risks were estimated and reported at the annual Risk Management Steering Committee meeting.
 Indicators and Targets	- Management indicators and targets are established to measure climate-related risks and opportunities. - Greenhouse gas emissions from Scope 1, 2, and 3 are inventoried and disclosed annually in accordance with ISO 14064-1, to identify emission sources and enable focused management. - Product life cycle assessments are conducted, with efforts to improve carbon footprint hotspots through hotspot analysis.	- Greenhouse gas management and energy recycling targets have been established. For details, please refer to the "Greenhouse Gas Management" and "Energy Management" sections of this report. - Set mid- and long-term goals for renewable energy in line with the renewable energy regulations of large energy users. For details, please refer to the "Energy Management" sections of this report. - Product life cycle assessments have been completed, and improvement measures have been implemented based on identified carbon footprint hotspots.

Climate-Related Risks and Opportunities and Corresponding Strategies

Type	Aspects	Issues	Scenario Assumptions	Potential Financial Impact	Response Strategies
 Transition Risk	Policy and Regulatory Risk	Greenhouse Gas Emissions Cap Control and Carbon Fee Collection/ Net-Zero Emissions	- IEA WEO 2024 NZE 2050 Net Zero Emissions Scenario: A global pathway to limit temperature rise to no more than 1.5°C. - IPCC AR6 Shared Socioeconomic Pathway SSP1-1.9: An ultra-low emissions scenario.	- In accordance with the Climate Change Response Act, carbon fees will be implemented starting in 2025, with the projected impact on the company's operating costs estimated at less than 1%. - Installation and operational costs for carbon reduction equipment are expected to increase. - The increasing cost of purchasing renewable energy and carbon credits is expected to affect the Company's operating costs by less than 1%.	- Set aggressive carbon reduction targets and use 100% renewable energy company-wide by 2050. - Raise resource utilization and reduce the Company's mid- and long-term operating costs, which can also achieve the goal of energy conservation and carbon reduction. - Continue to conduct greenhouse gas inventory, analyze the status quo of emissions, and set reduction targets.
	Immediate Risk	Extreme Weather Events such as Typhoons and Floods	Under climate change, extreme weather events expose the company's operational sites to natural disasters, resulting in business interruptions and increased restoration costs. - Under the low emissions scenarios of SSP1-2.6, the average annual total precipitation in Taiwan in the medium and long term will increase by around 12% and 16%, respectively, and the average annual maximum daily precipitation intensity will increase by around 15.7% and 15.3%, respectively. - Under the very high emissions scenarios of SSP5-8.5, the average annual total precipitation in Taiwan in the medium and long term will increase by around 15% and 31%, respectively, and the average annual maximum daily precipitation intensity will increase by around 20% and 41.3%, respectively.	Sudden-onset climate disasters may cause damage to assets, such as plants and equipment. The Company may face operational disruptions or reconstruction or repair costs, which are expected to affect the Company's operating revenue by roughly 1% to 3% and increase repair costs.	- Establish and improve emergency response procedures, such as purchasing sandbags to block water flows, turning on the stormwater discharge valves in the side ditches to stop collecting stormwater, and conducting regular exercises to respond in advance and mitigate the impact. - Sign a property damage business interruption (PDBI, including business interruption insurance and property insurance) insurance contract with an insurance company every year to reduce business interruption losses and repair costs caused by extreme weather events, and increase in operating expenses of less than 5%.
 Physical Risk	Immediate Risk	Droughts	It is estimated that water resource interruption may halt production lines, resulting in a prolonged operational shutdown.	It is assumed that water shortage may cause disruption to the Company's operations for seven days, which may affect the Company's operating revenue by roughly 1% to 3%.	- Regularly conduct water shortage exercises. - Establish water filling procedures and install filling equipment, and regularly offer training on operating procedures. Operating costs are expected to increase by approximately 1% to 3%. - Improve water resource efficiency, continue to implement water-saving measures, use recycled water, and reduce water use and consumption.
	Long-term Risk	Rising Average Temperatures	- Under the mitigation scenarios of SSP1-2.6, the annual average temperature in the middle and late 21st century may rise by 1.3°C and 1.4°C, and the number of days with maximum temperature above 36°C in various places will increase by about 6.8 days and 6.6 days, respectively. - Under the worst scenarios of SSP5-8.5, the annual average temperature in the middle and late 21st century may rise by more than 1.8°C and 3.4°C, respectively, and the number of days with maximum temperature above 36°C in various places will increase by about 8.5 days and 48.1 days, respectively.	Rising average annual temperatures lead to increased usage of energy equipment, resulting in higher energy costs. According to information from Taiwan's Bureau of Energy, lowering air conditioning temperature by 1°C increases electricity consumption by 6%. Assuming electricity tariffs remain unchanged, under the SSP1-2.6 scenario, electricity costs are projected to rise by approximately 7.8% to 8.4%, with an impact on operating costs of less than 1%. Under the SSP5-8.5 scenario, electricity costs are expected to increase by approximately 10.8% to 20.4%, also with an impact on operating costs of less than 1%.	- Establish an energy management organization to formulate energy conservation and carbon reduction development targets and plans, coordinate and integrate various departments' energy conservation and carbon reduction strategies and projects, and continue to adopt and evaluate various energy-saving technologies to implement energy improvement plans for relevant equipment. - Adopt intelligent control equipment to improve energy efficiency.
 Opportunities	Resource Efficiency	Material Conservation Designs	To meet the requirements of a green supply chain, efforts are made to enhance the recycling and reuse rates of packaging, packing materials, and used empty containers.	The domestic packaging material recycling rate exceeds 80%, reducing packaging procurement costs, with an expected impact on operating costs of less than 1%.	- Product packaging material recycling and reuse. - Packaging bags recycling and reuse. - Discarded empty containers recycling and reuse.
		Reduction of Water Usage & Consumption	To implement effective water resource management.	Efforts to reduce the procurement cost of backup water sources are projected to result in an operating cost impact of less than 1%.	- Continuously promote water-saving measures. - Improve industrial water efficiency.

5.1.2 Greenhouse Gas Management

Scope 1

Greenhouse Gas Emissions **6,527** metric tons of CO₂e

Scope 2

Greenhouse Gas Emissions **29,665** metric tons of CO₂e

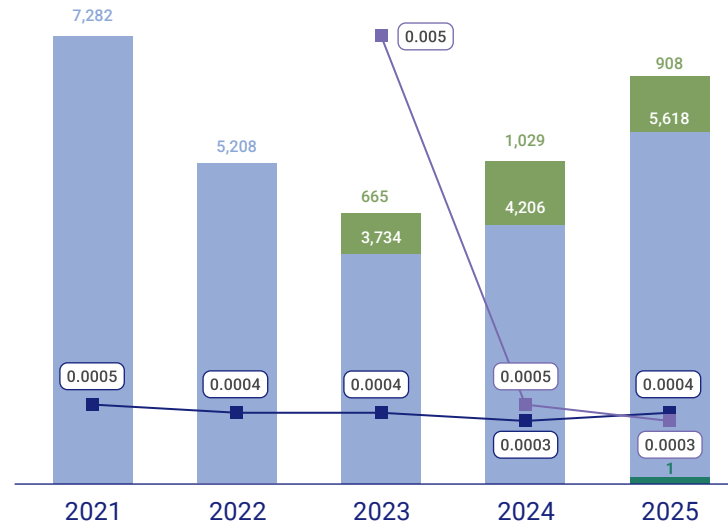
Scope 3

Greenhouse Gas Emissions **64,673** metric tons of CO₂e

VisEra established a voluntary greenhouse gas inventory system in 2013. We referenced ISO 14064-1:2018 standards and the WBCSD/WRI Greenhouse Gas Protocol, and regularly inventory greenhouse gas emissions every year to monitor greenhouse gas usage and emissions, verify the effectiveness of reduction actions, and obtain third-party verification.

VisEra regards renewable energy as an important strategy for attaining net zero emissions. We continued to optimize process greenhouse gas usage and maximize exhaust gas reduction as our benchmark actions. Since 2020, we have local scrubbers(LSC), which are now 100% installed across all self-owned facilities. We also continue to replace inefficient LSC in the Hsinchu plant, effectively reducing process fluorine gas emissions. Compared with not installing LSC, we have taken concrete actions to reduce direct greenhouse gas emissions in Scope 1 by 27,244 metric tons of CO₂e. In 2025, due to the introduction of multiple energy-saving measures and the increase in the use of renewable energy in the factory (as detailed in the energy management section), the Scope 2 emission intensity will be reduced. The carbon reduction amount of the energy-saving project in 2025 will reach 1041.66 metric tons of CO₂e. Since 2023, our own office sites have been using 100% renewable energy.

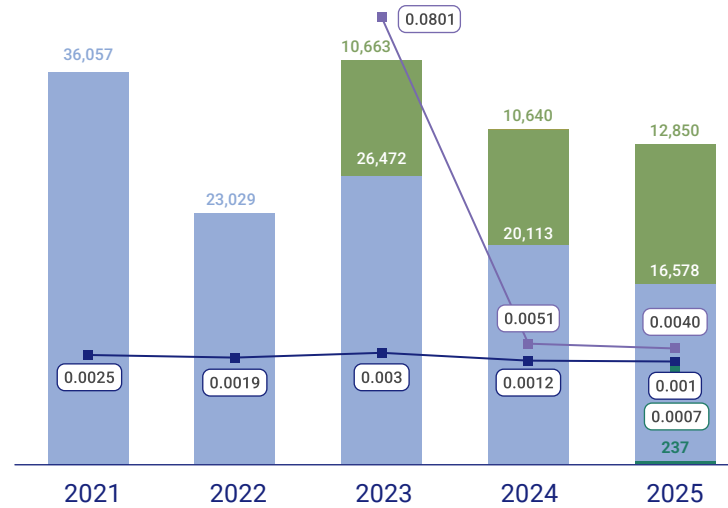
Scope 1



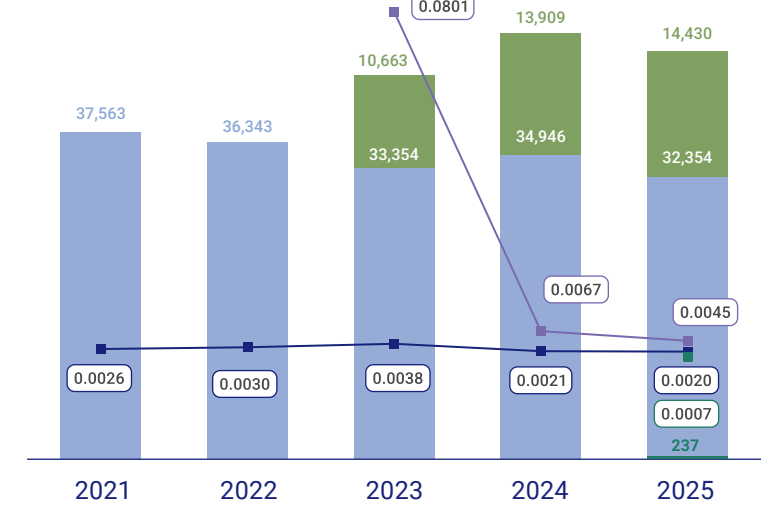
■ Greenhouse gas emissions Hsinchu Plant
■ Greenhouse gas emissions Longtan Plant
■ Greenhouse gas emissions Zhongli Plant

■ Emission intensity Hsinchu Plant
(metric tons of CO₂e / 8" equivalent wafer mask layer)
■ Emission intensity Longtan Plant
(metric tons of CO₂e / 8" equivalent wafer mask layer)
■ Emission intensity Zhongli Plant

Scope 2 (Market Base)



Scope 2 (Location Base)



Note 1: Statistical data covers Scope 1 and Scope 2 greenhouse gas emissions; greenhouse gas types include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).

Note 2: The operational control approach is adopted for Scope 1 inventory data as the basis for inventory.

Note 3: Scope 1 and Scope 2 data include VisEra's Hsinchu plant, Longtan plant (included since 2023), and Zhongli plant (included since 2025).

Note 4: The GWP values prior to 2022 were based on the IPCC Fourth Assessment Report (AR4), values for 2023 were based on the Fifth Assessment Report (AR5), and values for 2024 were based on the Sixth Assessment Report (AR6).

Note 5: Electricity carbon emissions were calculated using the emission factor of 0.474 kg CO₂e/kWh, as published in 2024 by the Bureau of Energy, Ministry of Economic Affairs.

Note 6: Baseline year: 2018

To continuously strengthen greenhouse gas management and the integrity of value chain emission inventories, VisEra has been following the WBCSD/WRI Greenhouse Gas Protocol since 2020, gradually incorporating Scope 3 greenhouse gas emissions into quantification and management, and continuously passing external third-party verification to ensure the accuracy and credibility of the inventory results.

Regarding Scope 3 emissions, the Company follows the 15 emission categories defined by the Greenhouse Gas Protocol, comprehensively considers factors such as the feasibility of acquiring activity data, the reliability of emission factors, data collection timelines, regulatory requirements, and the degree of stakeholder concern, and prioritizes the inventory and estimation of significant indirect emission sources.

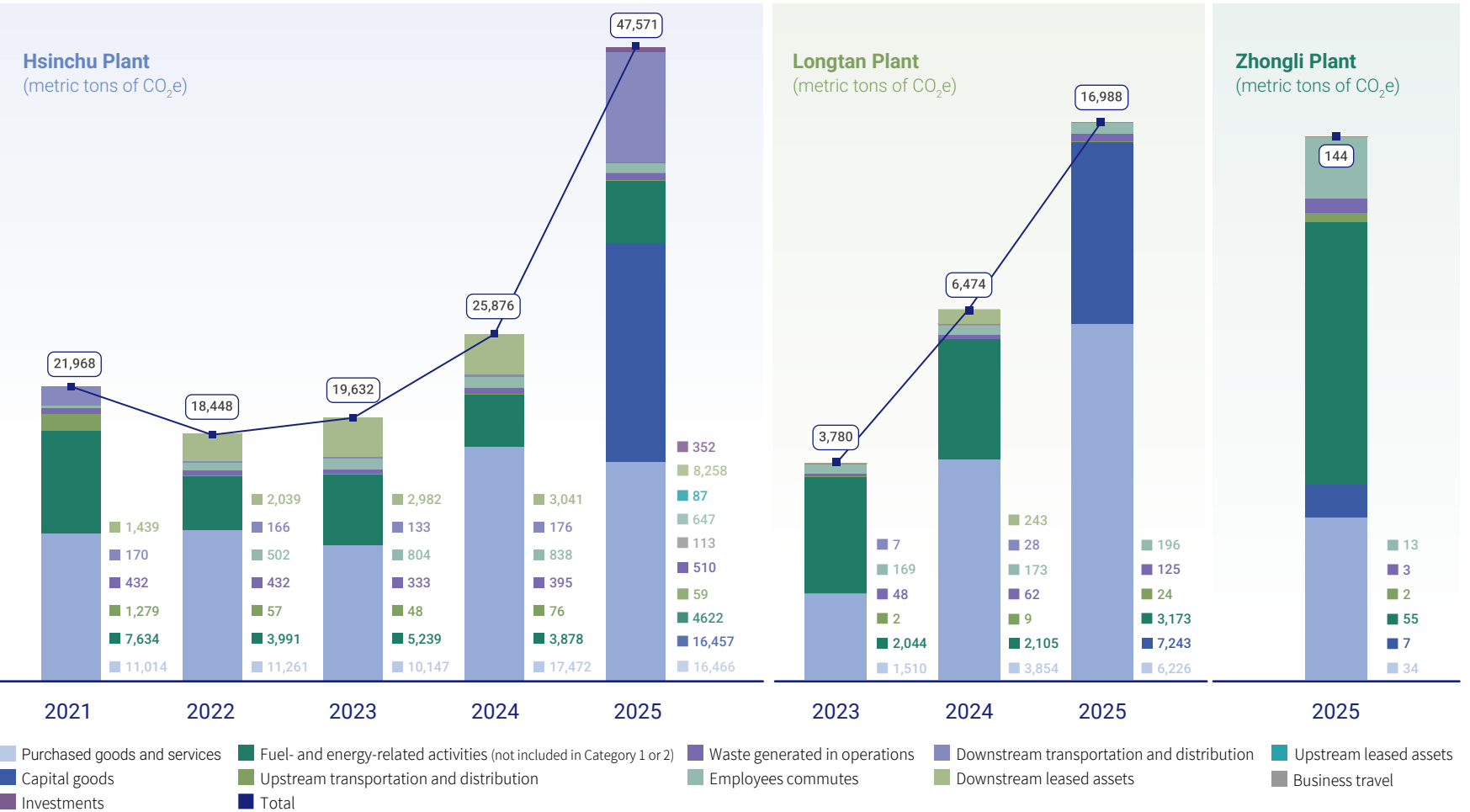
In 2025 (baseline year), VisEra cooperated with its parent company (TSMC) to jointly promote the Science Based Targets initiative (SBTi). In accordance with the Group's overall carbon reduction strategy and target-setting requirements, we further reviewed and adjusted the greenhouse gas inventory boundaries and specifically expanded and deepened the inventory scope for Scope 3 emissions, to ensure that the inventory results can serve as a reliable basis for group target setting and reduction pathway planning.

Due to adjustments in inventory boundaries and the inclusion of more significant value chain emission sources, Scope 3 greenhouse gas emissions have shown an upward trend since 2025 compared to previous years. This change mainly reflects the improvement in inventory integrity and the deepening of management, rather than a deterioration in actual operational activities or emission intensity.

To maintain consistency and transparency in information disclosure, VisEra continues to disclose annual greenhouse gas emission data from 2021 to 2025 and clearly noted the differences in inventory boundaries for each year in the relevant tables as a reference for stakeholders to understand emission trends. Starting from 2025, the Company followed SBTi requirements to gradually establish a baseline year and reduction performance tracking mechanism that has long-term comparability.

In addition, VisEra has established a sound energy management system with the core goals of "increasing energy efficiency and reducing greenhouse gas emissions". We continue to implement energy-saving improvement measures and actively use and purchase renewable energy to steadily move toward the long-term goal of net-zero emissions.

Scope 3



Note 1: Disposal of waste includes both solid and liquid waste.

Note 2: Scope 3 has included the Longtan plant since 2023 and the Zhongli plant since 2025.

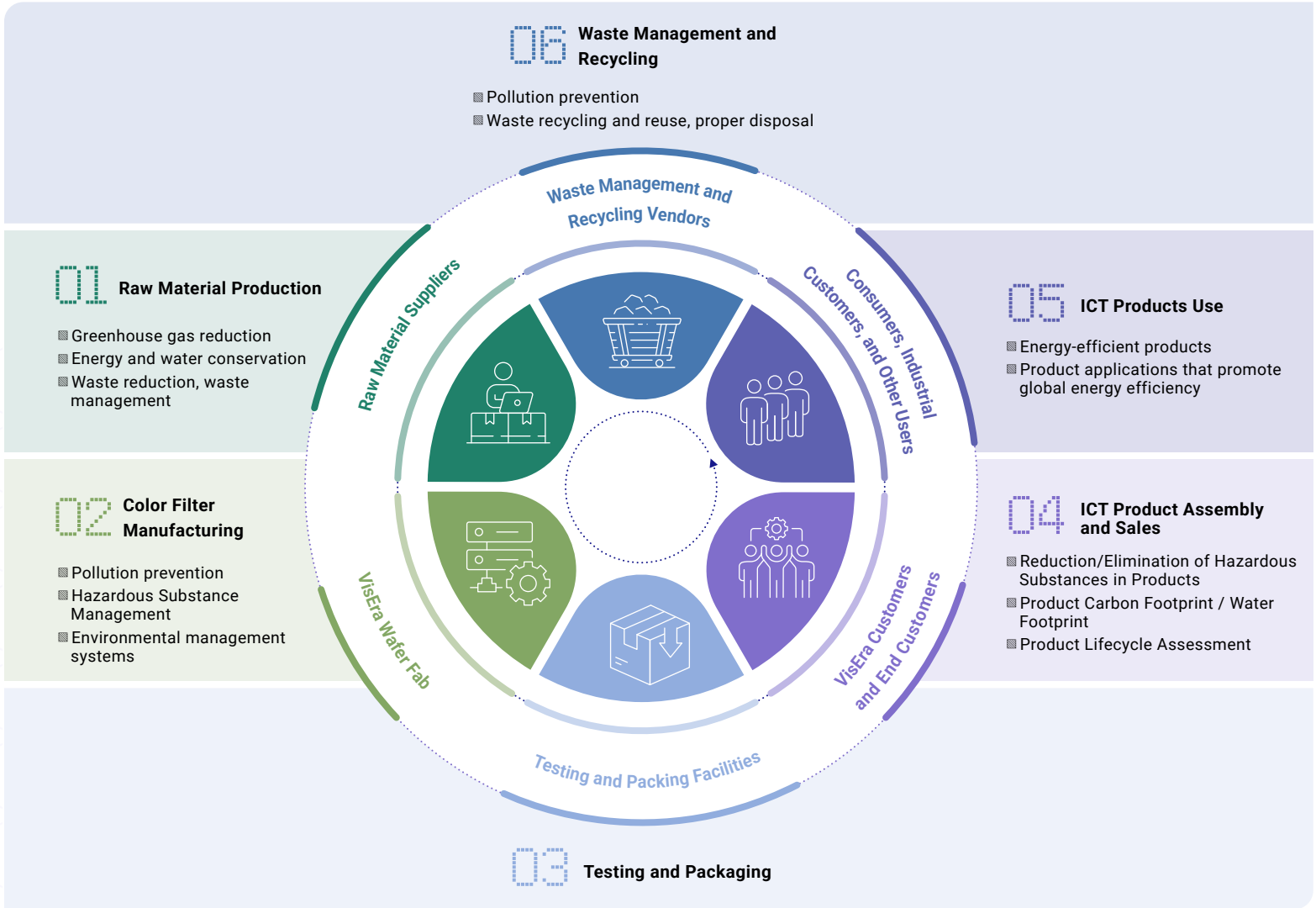
Note 3: For Scope 3, the GWP values were based on the IPCC Fifth Assessment Report (AR5) in 2023, and have been based on the IPCC Sixth Assessment Report (AR6) since 2024.

Note 4: Starting in 2025, VisEra has coordinated with its parent company to jointly promote the SBTi, re-examined and adjusted greenhouse gas inventory boundaries, particularly expanding the inventory scope, and included items for Scope 3 emissions. Simultaneously, the baseline year was adjusted from 2018 to 2025. Due to the expansion of the inventory scope, Scope 3 and overall greenhouse gas emissions from 2025 onwards are not fully comparable with data from previous years.

Note 5: Statistical data covers greenhouse gas types including CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃.

5.1.3 Product Environmental Impact Assessment

VisEra devote to decrease the lifeline of products to the environment impact in each phase with the sustainability thinking including the ingredient manufacture and transportation, the product manufacture , test and cover. To execute evaluation of a life cycle of products , CO₂ foot print and the water foot print every three year and get ISO14040, ISO14067, ISO14046, and ISO50001the third side certification. For 2025, the 2023 assessment results continue to apply. We discover the inspection result in 2023, the greenhouse effect hot spot originates from electricity usage, accounting for 66.55% of total emissions. VisEra continue to progress the direction except to increase the renewable energy's electricity consumption ratio and also find another strategy for the source reduction. In 2025, to respond the production demand, we adjust the number of supplied machine and scrubber leak. The facility engineering equipment evaluate the measure of electronic saving and water saving. Refer to “[Energy Management](#)” and “[Water Resource Management](#)” of the Report for more information.



2023 Color Filter Film Product Life Cycle Assessment Results (Reporting Unit: per 8-inch wafer equivalent/layer)

Impact Indicator	Raw Material Stage Impact	Raw Material Stage Percentage	Manufacturing Stage Impact	Manufacturing Stage Percentage	Total	Unit	Percentage
Greenhouse Effect	2.55E-02	23.89%	8.11E-02	76.11%	1.07E-01	kgCO ₂ e/ per 8-inch wafer equivalent/layer	100.00%
Ozone Depletion	5.40E-09	18.52%	2.37E-08	81.48%	2.91E-08	kg CFC-11 eq/ per 8-inch wafer equivalent/layer	100.00%
Freshwater Ecotoxicity	1.17E+00	7.27%	1.49E+01	92.73%	1.61E+01	CTUh/ per 8-inch wafer equivalent/layer	100.00%
Human Toxicity, Cancer	5.60E-12	13.11%	3.71E-11	86.89%	4.27E-11	CTUh/ per 8-inch wafer equivalent/layer	100.00%
Human Toxicity, Non-Cancer	3.28E-11	3.88%	8.13E-10	96.12%	8.45E-10	CTUh/ per 8-inch wafer equivalent/layer	100.00%
Particulate Matters / Respirable Inorganic Substances	1.38E-09	14.09%	8.44E-09	85.91%	9.82E-09	Disease inc./ per 8-inch wafer equivalent/layer	100.00%
Ionising Radiation, Human Health	5.77E-03	6.41%	8.43E-02	93.59%	9.00E-02	kBq U235 eq/ per 8-inch wafer equivalent/layer	100.00%
Photochemical Ozone Formation	5.40E-05	8.07%	6.16E-04	91.93%	6.70E-04	kg NMVOC eq/ per 8-inch wafer equivalent/layer	100.00%
Acidification	1.20E-04	7.70%	1.44E-03	92.30%	1.56E-03	mol H+ eq/ per 8-inch wafer equivalent/layer	100.00%
Eutrophication-Land	1.99E-04	5.44%	3.45E-03	94.56%	3.65E-03	mol N eq/ per 8-inch wafer equivalent/layer	100.00%
Eutrophication- Freshwater	9.21E-06	2.38%	3.78E-04	97.62%	3.88E-04	kg P eq/ per 8-inch wafer equivalent/layer	100.00%
Eutrophication- Seawater	2.31E-05	0.38%	6.09E-03	99.62%	6.12E-03	kg N eq/ per 8-inch wafer equivalent/layer	100.00%
Resource Depletion- Water	6.35E+00	13.88%	3.94E+01	86.12%	4.57E+01	m3 depriv./ per 8-inch wafer equivalent/layer	100.00%
Resource Depletion - Minerals and Metals	9.84E-10	1.63%	5.94E-08	98.37%	6.03E-08	kg Sb eq/ per 8-inch wafer equivalent/layer	100.00%
Resource Depletion - Fossil Fuels	3.54E-03	100.00%	0.00E+00	0.00%	3.54E-03	MJ/ per 8-inch wafer equivalent/layer	100.00%
Land Use	3.38E-02	11.56%	2.59E-01	88.44%	2.93E-01	pt/ per 8-inch wafer equivalent/layer	100.00%
Single Score	4.90E-05	13.23%	3.21E-04	86.77%	3.70E-04		100.00%

Note 1: The life cycle assessment software used for the 2023 product environmental footprint calculation is SimaPro v9.5.0.0, including the updated database. The life cycle impact assessment methodology follows Environmental Footprint 3.1 V1.00, with the EF 3.1 normalization and weighting set selected.

Note 2: Ozone Depletion: 2.91*10-11 ton CFC-11 eq.

Note 3: The LCA ozone-depleting substances (ODS) primarily refer to halogenated compounds regulated under the Montreal Protocol, especially those containing chlorine and bromine, including the following items: CFC-11, CFC-12, CFC-133, Halon-1211

Substance Name	Chemical Name
CFC-11	CFCl ₃
CFC-12	CF ₂ Cl ₂
CFC-113	C ₂ F ₃ Cl ₃
Halon-1211	CBrClF ₂
Halon-1301	CF ₃ Br
Carbon tetrachloride	CCl ₄
Methyl chloroform	CH ₃ CCl ₃
Methyl bromide	CH ₃ Br

5.2 Energy Management

Energy Structure

Reduce energy consumption and lower carbon emissions to decrease energy costs and enhance overall economic efficiency, thereby achieving the goal of sustainable business development.

Improving Energy Efficiency

To establish an effective energy management system with the goal of enhancing energy efficiency and reducing greenhouse gas emissions, thereby achieving sustainable business development.

Renewable Energy

Closely monitor and actively participate in climate actions such as the RE100 global renewable energy initiative, and continue efforts in renewable energy use and procurement.

Target Setting	Results in 2025	2026 Target	2028 Target	2030 Target
Power Consumption per Unit Product (kWh/8"equivalent wafer - layer)	Power Consumption per Unit 4.268 (kWh/8"equivalent wafer - layer)	Power Consumption per Unit < 4.45 (kWh/8"equivalent wafer - layer) New		Power Consumption per Unit < 4.24 (kWh/8"equivalent wafer - layer) New
Average annual power saving rate of Hsinchu & Longtan Plants		Average annual power saving rate > 1.5% New	Average annual power saving rate > 1.5% New	Average annual power saving rate > 1.5% New
Percentage of renewable energy	↑ Usage rate 36.27% Target Usage rate > 24%	Usage rate ≥ 26%		Usage rate ≥ 40%

↑ Exceeded ✓ Achieved — Missed Target

Note 1:Electricity consumption per unit of product is calculated using data from the Hsinchu plant.

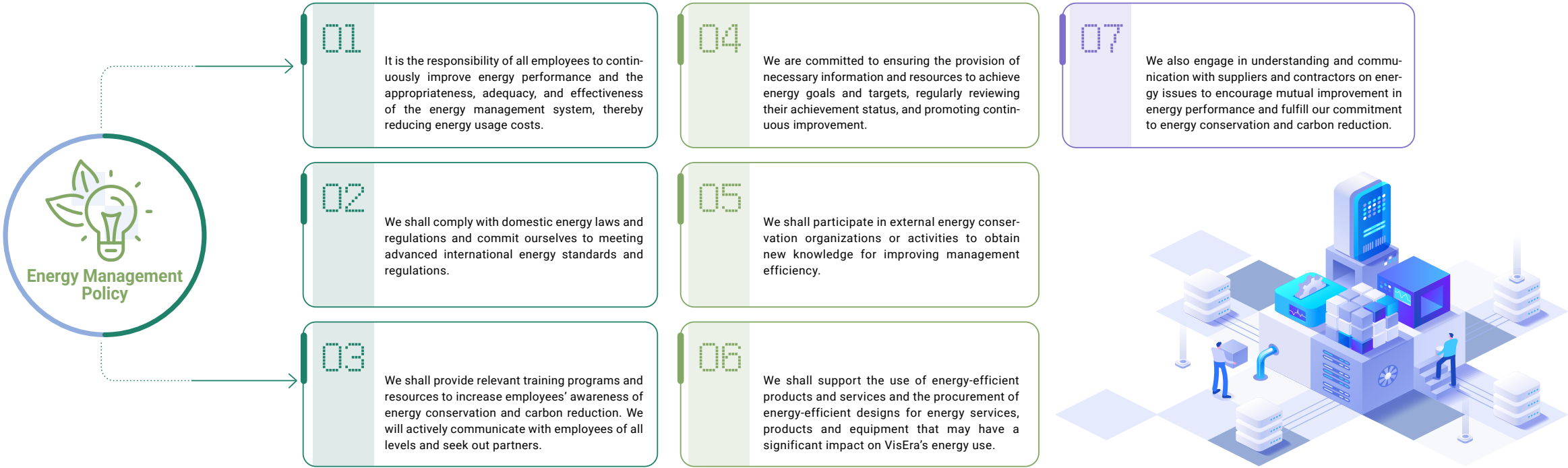
Note 2:In recent years, the Company has continuously promoted energy-saving measures to improve energy efficiency and achieve original targets ahead of schedule. By 2025, electricity consumption per unit of product decreased to 4.268 (kWh/8-inch wafer equivalent-layer). However, considering future factors such as production capacity changes, expansions, and installation plans, energy usage may still fluctuate. Therefore, the 2026 target for electricity consumption per unit of product is set at <4.45.

Communication Channels : Industrial Safety and Environmental Protection Department, Factory Department ESG@viseratech.com

5.2.1 Energy Management Policy

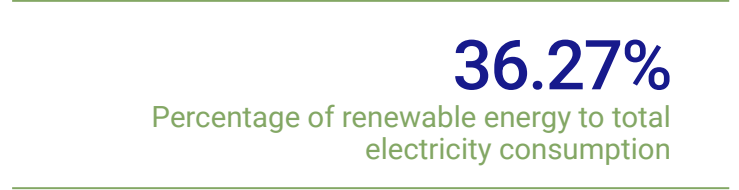
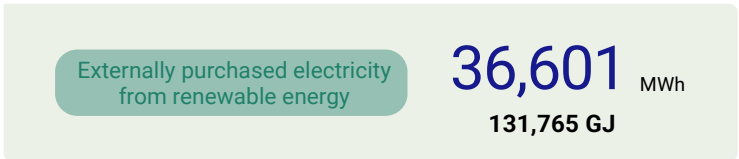
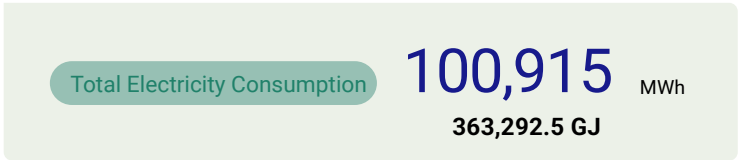
To establish an effective energy management system, VisEra has passed the ISO 50001 Energy Management System certification. With the goal of improving energy efficiency and reducing greenhouse gas emissions, the Company is committed to achieving sustainable business development. The use of energy in the manufacturing process under routine operation and management must meet the requirements in energy regulations and standards based on international norms. VisEra is committed to maintaining high standards of ESG corporate responsibility and environmental protection.

To achieve the above goals, VisEra promises to continuously improve and achieve:



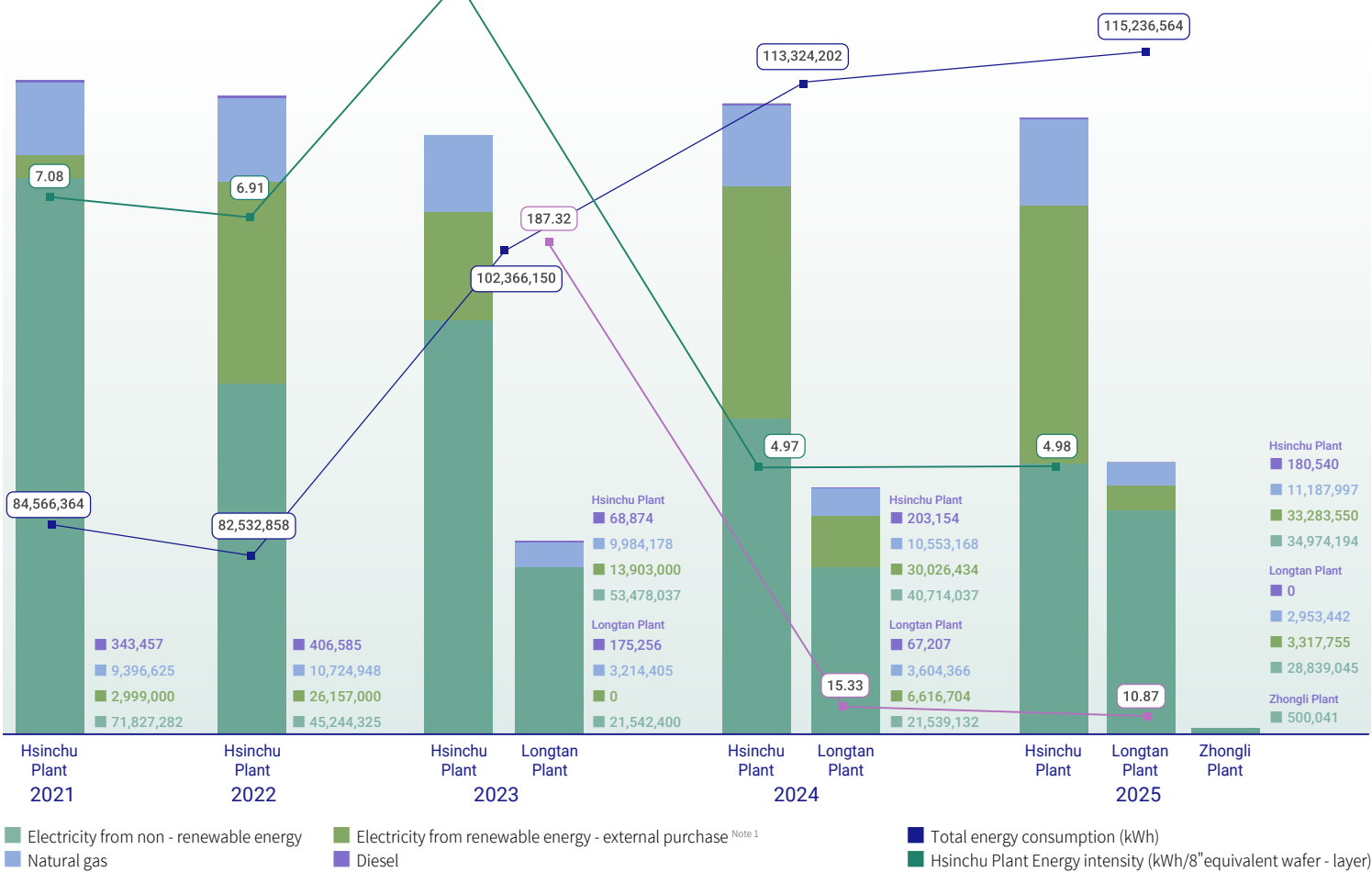
5.2.2 Energy Structure

Total energy consumption



VisEra's energy consumption structure is primarily based on externally purchased electricity, which accounts for 87.57%, followed by natural gas at 12.27%, and diesel at 0.16%. Therefore, the main target for energy saving is on reducing electricity and natural gas consumption. In 2025, total energy consumption was approximately 115,237 MWh, an increase of approximately 1.69% compared to 2024, due to the growth in production capacity and operational scale of the Longtan plant. To achieve the goal of 100% renewable energy by 2050, VisEra continues to purchase renewable energy, with renewable energy usage reaching 36.27% in 2025.

Unit (metric tons of CO₂e)



Note 1: Externally purchased electricity is sourced from wind power, small-scale hydro and solar photovoltaic power.

Note 2: 1 m³ natural gas = 10.13 kWh. 1 L diesel = 10.03 kWh. unit conversion coefficient provided for reference only: Bureau of Energy's Energy Statistics Handbook.

Note 3: 1 kWh = 0.0036 GJ, 2025 total energy consumption was approximately 414,851.6 GJ. (Non-renewable Energy = 229,727.7 GJ. Renewable Energy = 131,765 GJ).

5.2.3 Improving Energy Efficiency

To effectively reduce the greenhouse effect and energy consumption, VisEra has established an energy management organization. It formulates energy conservation and carbon reduction targets and plans, coordinates various departments to promote energy-saving strategies, and continues to adopt and evaluate various energy-saving technologies to implement equipment energy improvement plans. In 2025, the Company implemented multiple energy-saving measures in air conditioning, lighting, process exhaust, production equipment, and inspection/testing equipment to improve energy efficiency and reduce carbon emissions. The total electricity savings for that year were 2,197,604 kWh. Based on the latest electricity carbon emission factor (0.474 kg-CO₂e/kWh) published by the Energy Administration for 2024, this equates to a reduction of approximately 1041.66 metric tons of CO₂e emissions. In addition, by executing an equipment shutdown plan, electricity savings of 275,572 kWh were achieved that year. Simultaneously, the practice of eliminating unnecessary energy consumption in offices and public areas was promoted and implemented, along with awareness campaigns and education to increase employees' concepts and habits regarding energy saving and carbon reduction.

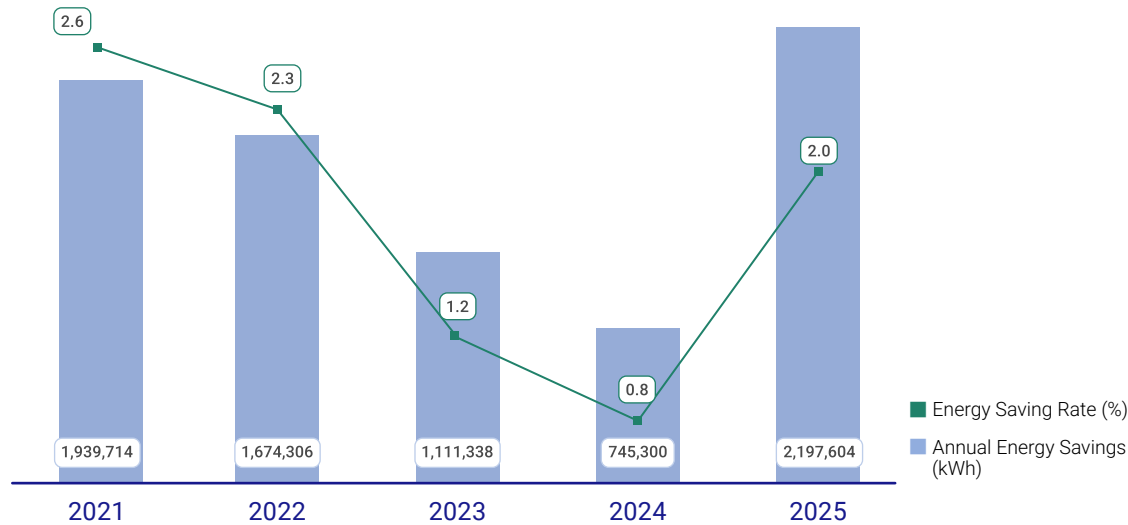
2025 Energy Saving Projects and Results

Project Type	Project Name	Starting Year	Power Saving (kWh)	Carbon Emissions Reduction (metric tons of CO ₂ e)	Cumulative Power Saving (kWh)	Cumulative Power Saving (GJ)	Cumulative Carbon Emissions Reduction (metric tons of CO ₂ e)
Air Conditioning	Hsinchu plant-Implementation of an Intelligent Model for the Chiller System	2024	153,526	72.77	176,026	633.69	83.44
	Hsinchu plant: Outdoor air enthalpy > 35 kJ/kg: Turning off cleanroom MAU water washing pump	2024	109,500	51.9	350,700	1262.52	166.23
	Hsinchu plant: Replacement of the wetted media pads in the cleanroom MAU (604)	2025	80,801	38.3	80,801	290.88	38.3
	Longtan plant: Adjustment of cooling water tower operation frequency	2025	154,845	73.4	154,845	557.44	73.4
	Longtan plant: Adjustment of cooling water tower sand filter pump operation	2025	239,580	113.56	239,580	862.49	113.56
	Total		738,252	349.93	1,001,952	3,607.03	474.93
Illumination	Hsinchu plant: Phase-I replacement of traditional lighting with LED lighting	2024	245,758	116.489	401,558	1445.61	190.34
	Hsinchu plant: Phase-II replacement of traditional lighting with LED lighting	2025	115,145	54.579	115,145	414.52	54.58
	Hsinchu plant: Comprehensive replacement of traditional lighting in the office building with LED lighting	2025	100,281	47.533	100,281	361.01	47.53
	Total		461,184	218.6	616,984	2,221.14	292.45
Process Emissions	Hsinchu plant: Efficiency improvement and renovation project for the acid exhaust scrubber fan motor	2025	7,759	3.68	7,759	27.93	3.68
	Hsinchu plant: Improvement of organic exhaust fan duct loss	2025	240,480	113.99	240,480	865.73	113.99
	Longtan plant: Optimization and adjustment of acid exhaust fan differential pressure	2025	190,582	90.34	190,582	686.1	90.34
	Total		438,821	208	438,821	1,579.76	208

Project Type	Project Name	Starting Year	Power Saving (kWh)	Carbon Emissions Reduction (metric tons of CO ₂ e)	Cumulative Power Saving (kWh)	Cumulative Power Saving (GJ)	Cumulative Carbon Emissions Reduction (metric tons of CO ₂ e)
Production Equipment	Hsinchu plant: Replacement of equipment with energy-efficient dry pumps to achieve energy savings	2024	219,802	104.19	362,902	1,306.45	172.02
	Hsinchu plant: Exposure equipment - Control of mercury lamp energy output	2025	74,348	35.24	74,348	267.65	35.24
	Hsinchu plant: Exposure equipment - Improvement of power voltage regulation to reduce lamp source usage (power voltage stabilization and source reduction)	2025	36,277	17.2	36,277	130.6	17.2
	Hsinchu plant: Replacement of etching equipment with energy-efficient dry pumps to achieve energy savings	2025	24,023	11.39	24,023	86.48	11.39
	Hsinchu plant: 8-inch process equipment - Replacement of vacuum pumps with energy-efficient models	2025	89,422	42.39	89,422	321.92	42.39
	Hsinchu plant: 12-inch process equipment - Replacement of vacuum pumps with energy-efficient models	2025	11,522	5.46	11,522	41.48	5.46
	Hsinchu plant: 12-inch process equipment - Turning off non-essential heating jackets on etching equipment	2025	18,940	8.98	18,940	68.18	8.98
	Hsinchu plant: Exposure equipment - Reduction of mercury lamp energy usage during idle time	2025	32,296	15.31	32,296	116.27	15.31
	Hsinchu plant: Sputtering equipment - Reduction of energy usage in idle modules	2025	43,542	20.64	43,542	156.75	20.64
	Longtan plant: Canon equipment - Adjustment of light source output power	2025	8,481	4.02	8,481	30.53	4.02
	Total		558,653	264.8	701,753	2,526.31	332.63
Inspection and Testing Equipment	Hsinchu plant: Adjustment of reflow oven monitoring frequency	2025	327	0.15	327	1.18	0.15
	Hsinchu plant: Replacement of halogen bulbs with LED lamps for optical microscope sidelights	2025	367	0.17	367	1.32	0.17
	Total		694	0.33	694	2.5	0.33

Note: The carbon emission coefficient refers to the 2024 electricity emission factor announced by the Bureau of Energy: Every kWh of electricity emits 0.474 kg-CO₂e/kWh. 1 kWh= 0.0036 GJ.

Energy Saving Achievements Over the Years



Note: The energy savings for 2025 include both the Hsinchu and Longtan plants. The Zhongli plant is not included in the energy savings calculation as it operates in a leased facility and shares public utilities.

Focus Case

Replacement and system optimization of cleanroom MAU washer section circulation water pumps

To achieve carbon reduction and sustainable development, VisEra replaced circulation water pumps and optimized the system for the MAU washing section. This reduces operational power consumption while ensuring stable operation of the humidification system, thus improving energy efficiency and reducing carbon emissions.

- Circulation water pump replacement:** The original high-power pump in the MAU washing section was replaced with a low-power model to reduce electricity consumption and improve energy efficiency.
- Optimization of humidification and washing effects:** The original general spray and mist eliminator system was converted to a wet membrane panel design, thus reducing the required circulating water volume while simultaneously strengthening the removal of micro-air pollutants and the humidification effect.
- System monitoring and performance evaluation:** Through the monitoring system, the overall energy consumption and operational performance of the humidification section are continuously evaluated to ensure the dual achievement of energy-saving effects and system stability.

The replacement of the MAU washing section circulation water pump and system optimization can reduce electricity consumption by approximately 57.6% per unit. This innovative measure effectively lowers the Company's operational costs and strengthens its ESG performance.

5.2.4 Renewable Energy



VisEra understands our corporate responsibility to the environment. In addition to continuing to improve energy efficiency, we are actively involved in the use and purchase of renewable energy by paying close attention to the Science Based Targets (SBT) initiative and the RE100 Global Renewable Energy Initiative to limit global warming to 1.5 °C. We also actively participate in the use and purchase of renewable energy. In 2025, the Company maintained 100% renewable energy usage in office areas, with total renewable energy usage reaching 36.27%. Our mid-term goal is to continue the stable supply of renewable energy, aiming for a 40% renewable energy usage commitment by 2030, with a long-term goal of achieving 100% by 2050.

VisEra has been gradually adopting renewable energy since 2021 and successively purchased onshore wind power and small-scale hydropower. In 2024, we added solar power purchased from Taipower. In 2025, the Company obtained 36,601 renewable energy certificates (RECs), equivalent to a reduction of 18,081 metric tons of CO₂ emissions. As of the end of 2025, we have cumulatively obtained 116,303 RECs, totaling 116,303,443 kWh of wheeled electricity. Additionally, VisEra has installed a 29.8 kW solar power system. In 2025, it sold a total of 28,256 kWh of solar electricity to Taipower.

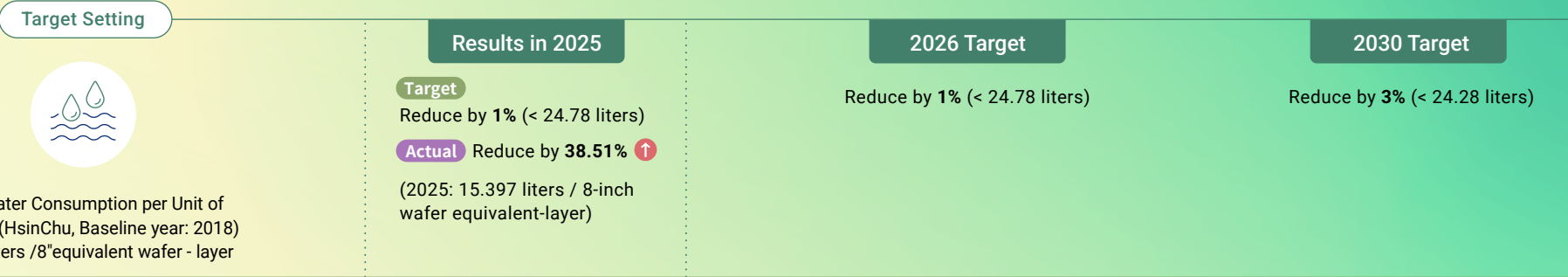
VisEra had signed renewable energy purchase agreements that include a 3,600 kW wind power system and an 8,150 kW hydropower system. These systems are expected to generate a combined total of approximately 33,440 MWh annually—equivalent to 33,440 RECs per year and a reduction of approximately 16,520 metric tons of CO₂ emissions annually. The Company will continue to expand its green electricity sources, demonstrating our emphasis on green energy usage and our unwavering support for clean energy.

Renewable Energy Usage Over the Years



5.3 Water Resource Management

As for water resource and risk management, the Company reduces water consumption per unit of product and improves efficiency through process optimization and water usage monitoring. Simultaneously, we promote recycling, reuse, and equipment improvements to reduce water consumption to strengthen resource sustainability while balancing operational needs.



Exceeded
 Achieved
 Missed Target

Communication Channels : Factory Department ESG@viseratech.com



5.3.1 Water Resource Risk Management

Water resources are critical for the semiconductor production process. VisEra primarily sources its water from Taiwan Water Corporation (Baoshan Reservoir) and does not extract water from other sources such as seawater or groundwater. Wastewater is discharged through the Hsinchu Science Park wastewater treatment plant. According to the water risk assessment tool from the World Resources Institute (WRI) to identify the water risk in the area where the plant is located, using water availability, environmental discharge quality, and regulatory and reputational risk as key indicators; the water risk assessments for all VisEra's production sites are classified as low-to-medium risk. By implementing the three main strategies of "implementing water use plans, seeking opportunities to conserve water, and controlling pollution sources", and by installing mechanical or electronic flow meters at water inlets and key water lines, we record and analyze meter readings daily to enforce water usage planning and control. We set up a Water Supply Emergency Response Team with representatives from relevant departments to monitor future water shortages, sources for purchasing water, and ways to replenish sources of purchased water, while arranging for the water purchase and replenishment schedule to implement water resource risk management.

2025 Water Resource Quantitative Data	Hsinchu Plant (megaliters)	Percentage (%)	Longtan Plant (megaliters)	Percentage (%)
Upstream water supply source -total withdrawal	247.95	100%	131.48	100%
- Tap water plant withdrawal	246.28	99.33%	130.79	99.46%
- Rainwater collection volume ^{Note 1}	1.67	0.67%	0.69	0.54%
Plant regional balance - total water consumption	383.706	100%	255.441	100%
- Domestic water consumption	33.568	8.75%	10.327	4.04%
- Pure water system ^{Note 2} - process water consumption	201.781	52.59%	51.464	20.14%
- Reclaimed water recycling volume ^{Note 3}	19.414	5.06%	87.75	34.35%
- Cooling tower water consumption ^{Note 4}	123.088	32.08%	74.12	29.01%
- Waste gas scrubbing water consumption ^{Note 5}	4.117	1.07%	29.83	11.68%
- Watering system water consumption	1.738	0.45%	1.95	0.76%
Downstream effluent - total water discharge	142.58	100%	80.71	100%
- Plant wastewater treatment volume ^{Note 6}	114.564	80.35%	70.05	86.80%
- Domestic sewage discharge	28.016	19.65%	10.66	13.20%
Total water consumption ^{Note 8}	105.37		50.77	

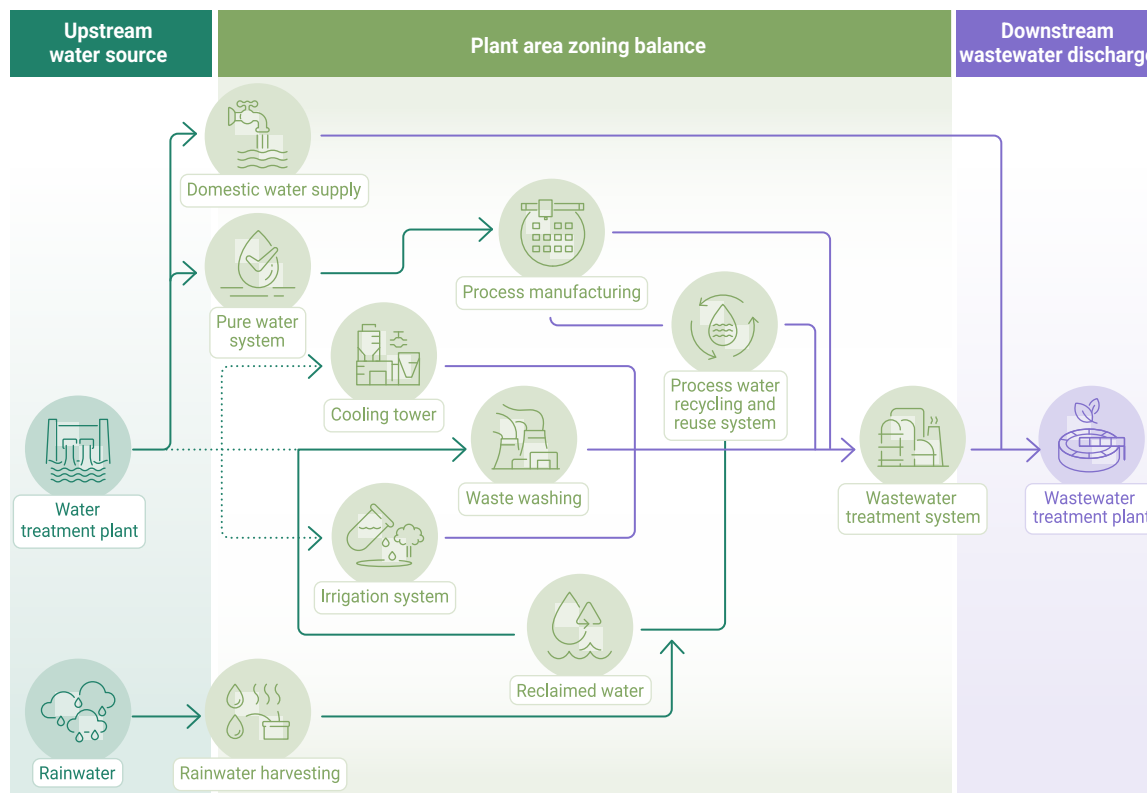
Note 1: Rainwater collection involves the use of the plant's rooftop rainwater recovery and reuse system that collects rainwater for the rainwater recovery tank. It is filtered and used as a source of water in the reclaimed water system.

Note 2: The pure water system directs tap water through adsorption, dosing, filtration, UV sterilization, and filtering processes for use on the production line and produces wastewater in the process.

Note 3: Reclaimed water recycling refers to treatment of wastewater in the plant with advanced organic reclaim (AOR) recycling systems. They treat wastewater that can be reused in the process by filtration, adsorption, and neutralization, and redirect the treated wastewater to other systems.

Note 4: The cooling towers dissipate heat in air conditioning systems via air-water contact. Some of the water mist escapes from the cooling tower when the system operates and it causes water consumption.

Relationship between water consumption balance and upstream and downstream environment



Note 5: The waste gas scrubbing system uses recycled reclaimed water. If the reclaimed water cannot replenish the water necessary for the scrubbing tower due to its supply of water to the cooling tower, tap water is used to replenish the supply.

Note 6: The wastewater is collected in the pipeline system and discharged into the sewer system of the Science Park after the pH is adjusted by dosing to meet the discharge standards.

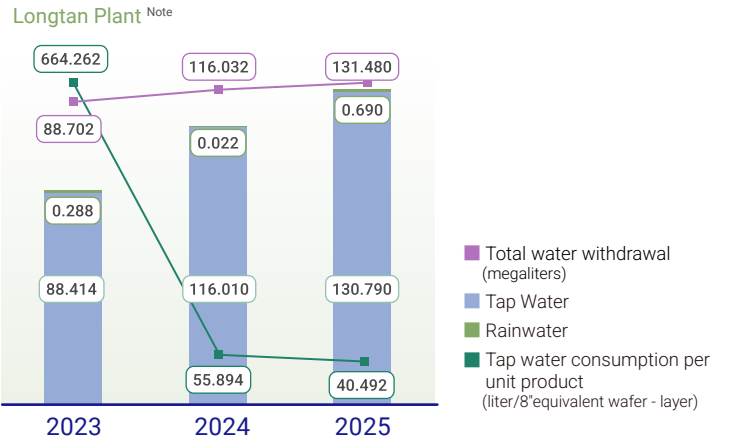
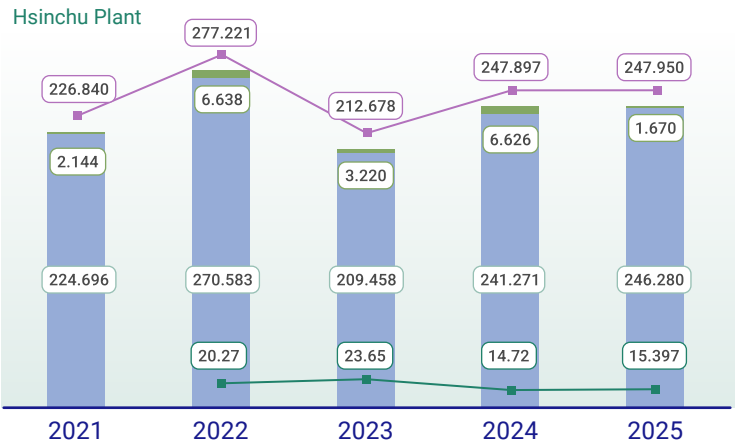
Note 7: The Company's wastewater is discharged in accordance with the water quality standards specified for the sewer system of Hsinchu Science Park Bureau, National Science and Technology Council.

Note 8: Total water consumption = total water withdrawal - total water discharge.

5.3.2 Water Resource Withdrawal

In 2025, VisEra's total water intake totaled 379.430 megaliters. Tap water was the main source accounted for about 99.37% and rainwater recycling accounted for 0.63%.

Total water withdrawal



Note: The Longtan plant was launched in 2023; production capacity gradually increased in 2024 and 2025, leading to a continuous increase in water consumption.

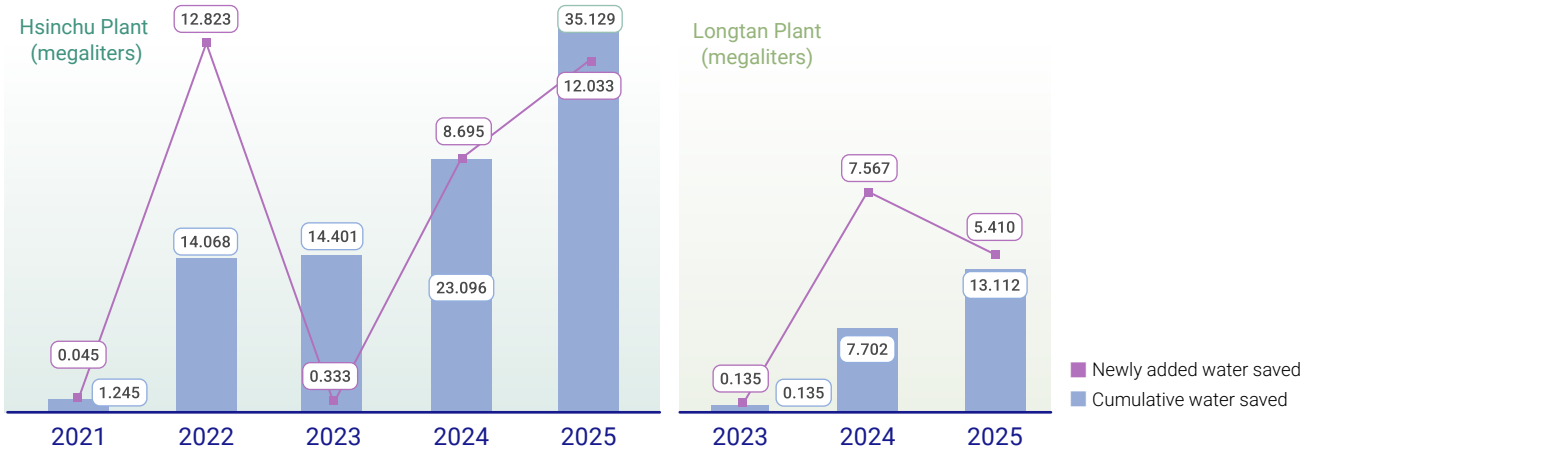
5.3.3 Water Conservation Measures and Recycled Water

VisEra has achieved water conservation by reducing industrial and domestic water usage and improving industrial water efficiency. In 2025, VisEra's total water savings reached 17.443 megaliters, with a cumulative total of 48.241 megaliters saved from 2021 to 2025.

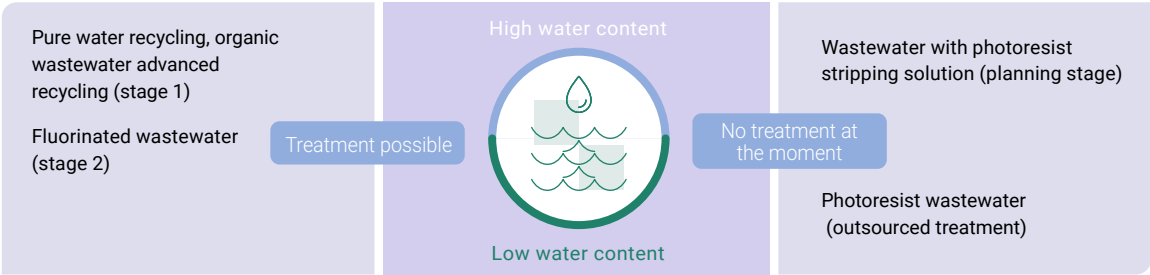
Water Conservation Measures

Reduce water consumption	Increase water usage efficiency
Industrial Water A. Pure water system reclaimed water recovery: Added savings of 0.823 million liters in 2025. B. Cooling water tower sand filter water recovery: Added savings of 0.186 million liters in 2025. C. Equipment exhaust treatment unit water savings: Added savings of 3.733 million liters in 2025. D. Reprocessing equipment dynamic overflow logic and water conservation upgrades: Added savings of 5.757 million liters in 2025. E. Photoresist stripping equipment flow field optimization and water saving project: Added savings of 1.512 million liters in 2025. F. Automatic oven upgrade plan: Added savings of 0.022 million liters in 2025. G. Longtan plant pure water system optimization: Added savings of 5.410 million liters in 2025. Domestic Water A. Enhance internal training and communication. B. Participate in advocacy campaigns. C. Use water-saving equipment and products.	Industrial Water A. Participate in plant water conservation assistance programs. B. Review the possibility of setting up different process wastewater recycling systems and convert the wastewater into water that can be reused. C. Review unnecessary loss of water resources with production units (processes/equipment) to identify opportunities for reducing water consumption in the production process.

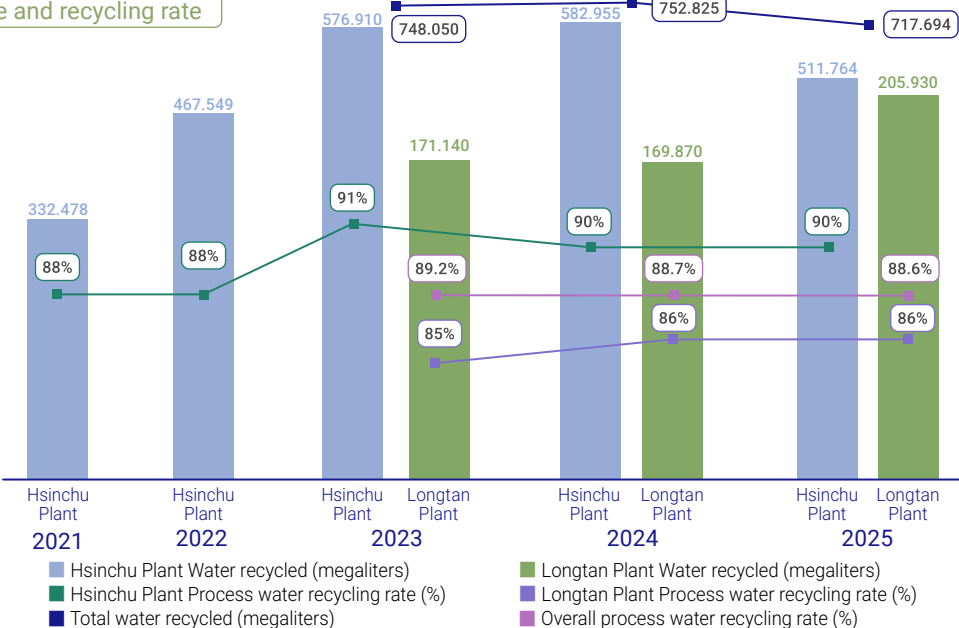
Water conservation results in past years



To attain the goal of recycling process wastewater, the wastewater produced during the production process is first collected through separate pipelines based on the level of water content and whether it can/cannot be treated to avoid cross-contamination that could result in the inability to recycle any wastewater. In the first stage, the wastewater that can be recycled by preliminary filtration is directed into the reclaimed water collection system. The reclaimed water is produced in the second stage after treatment through specialized systems. At present, due to cost and site restrictions, the wastewater with high water content and photoresist stripping solution is still disposed by contractors of outsourced services. If there is a breakthrough in treatment technology in the future, we will prioritize the recycling of this water source. After the concentrated efforts in the two stages, the water resource usage rate can be calculated as “(tap water consumption + reclaimed water) / tap water consumption = number of times a drop of water is used”. One drop of water can be reused approximately 2.9 times.

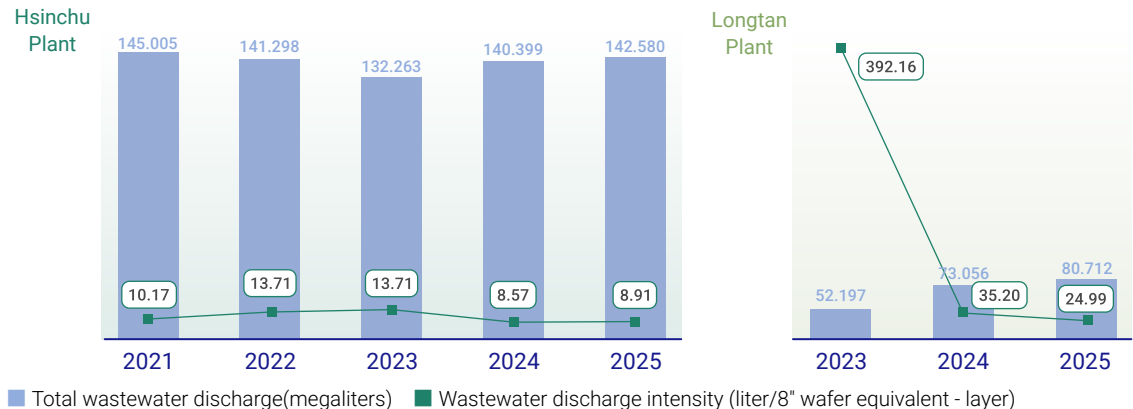


Water resource recycling volume and recycling rate



5.3.4 Effluent Management

VisEra actively develops water pollution prevention measures to reduce the potential impact in operations. We implement pollution prevention and treatment of wastewater quality indicators including biological oxygen demand (BOD), chemical oxygen demand (COD), fluoride ion concentration (F-) and suspended solids (SS) discharge concentration. The indicators were in compliance with the discharge water standards of the Science Park. With 2025 as the baseline year, the target is to reduce wastewater discharge intensity by 3% by 2030.



Note: The higher wastewater discharge intensity at the Longtan plant in 2023 was due to the facility being in its initial production phase, where total capacity had not yet been fully realized; fixed operational discharge relative to a lower output denominator resulted in a higher intensity value.

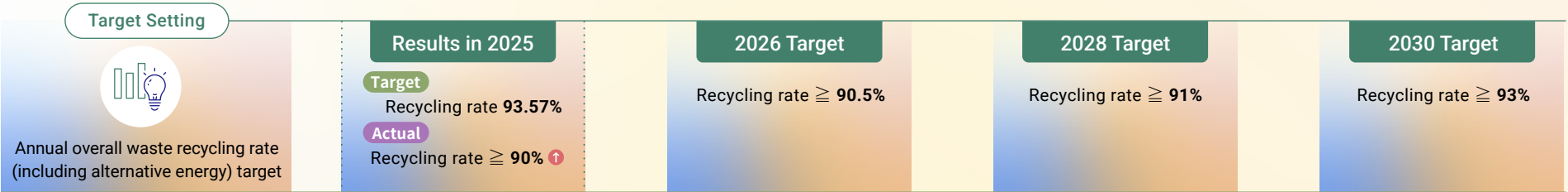
Wastewater classification and recycling process

	Machine separation	Recycling system	Wastewater treatment	Recycling and reuse
Fluorinated wastewater	Fluorinated wastewater	Reclaimed exhaust gas scrubbing wastewater	Fluoride acidification and mixing treatment	Calcium fluoride
Acid-alkaline balance and organic wastewater	Acidic wastewater Alkaline wastewater Organic wastewater	None	Acid-alkaline wastewater treatment	None
High concentration waste solution	Photoresist waste Photoresist stripping solution recycling	None	Photoresist Waste Recycling	Photoresist

5.4 Waste Management

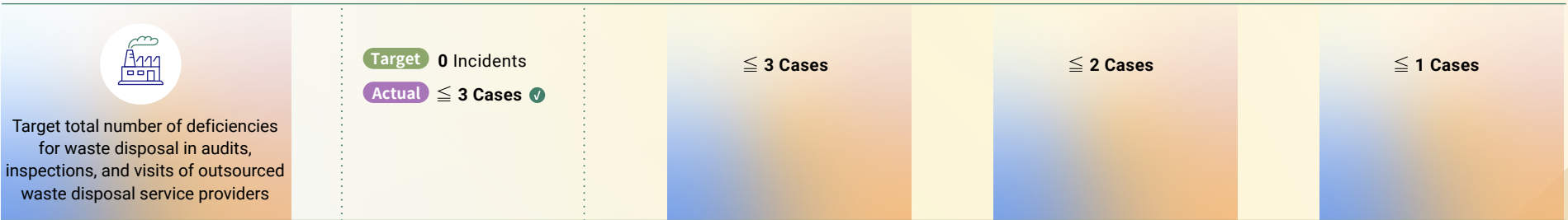
Waste Production and Recycling

VisEra implements green manufacturing and upholds the waste management principle of “minimizing waste generation and maximizing resource circulation”



Waste Disposal Contractor Management

Outsources all business waste disposal through environmental agencies, with selection conducted jointly high-quality vendors by the company’s internal units

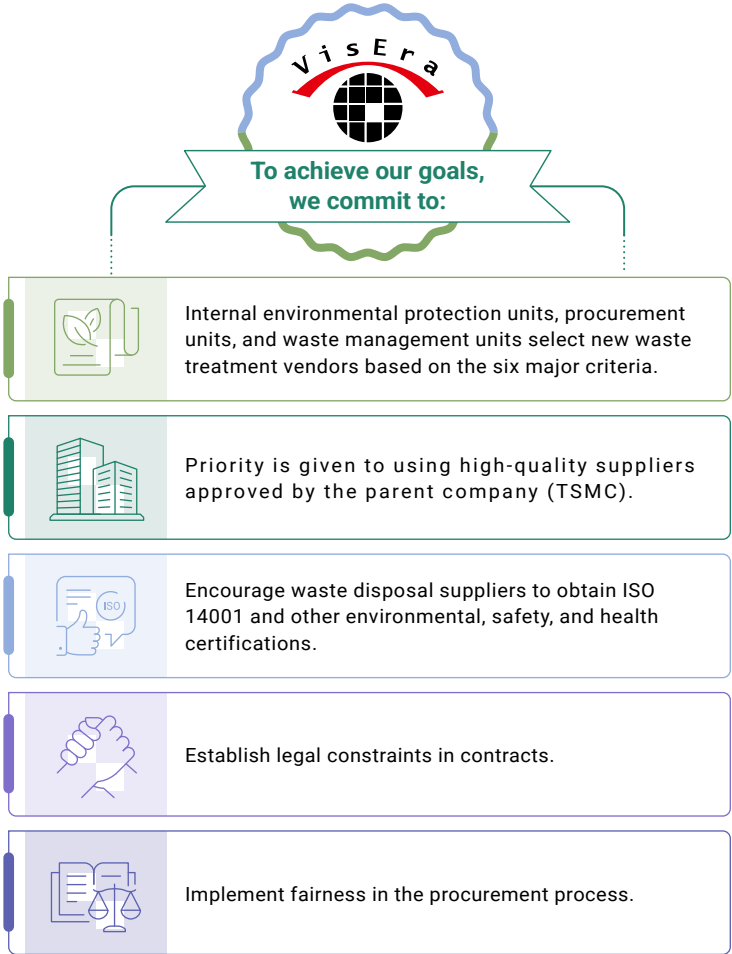


↑ Exceeded
✓ Achieved
⬇ Missed Target

Communication Channels : Material Management Department ESG@viseratech.com



VisEra's hazardous industrial waste derived from materials used in the production process account for approximately 60% of the total waste. Any failure in management or disposal will directly cause pollution to the environment and indirectly create a negative perception among downstream customers and damage corporate reputation. So, the Company will implement ESG target management to strengthen the capabilities of our contracted waste disposal companies and jointly support environmental protection and the society.

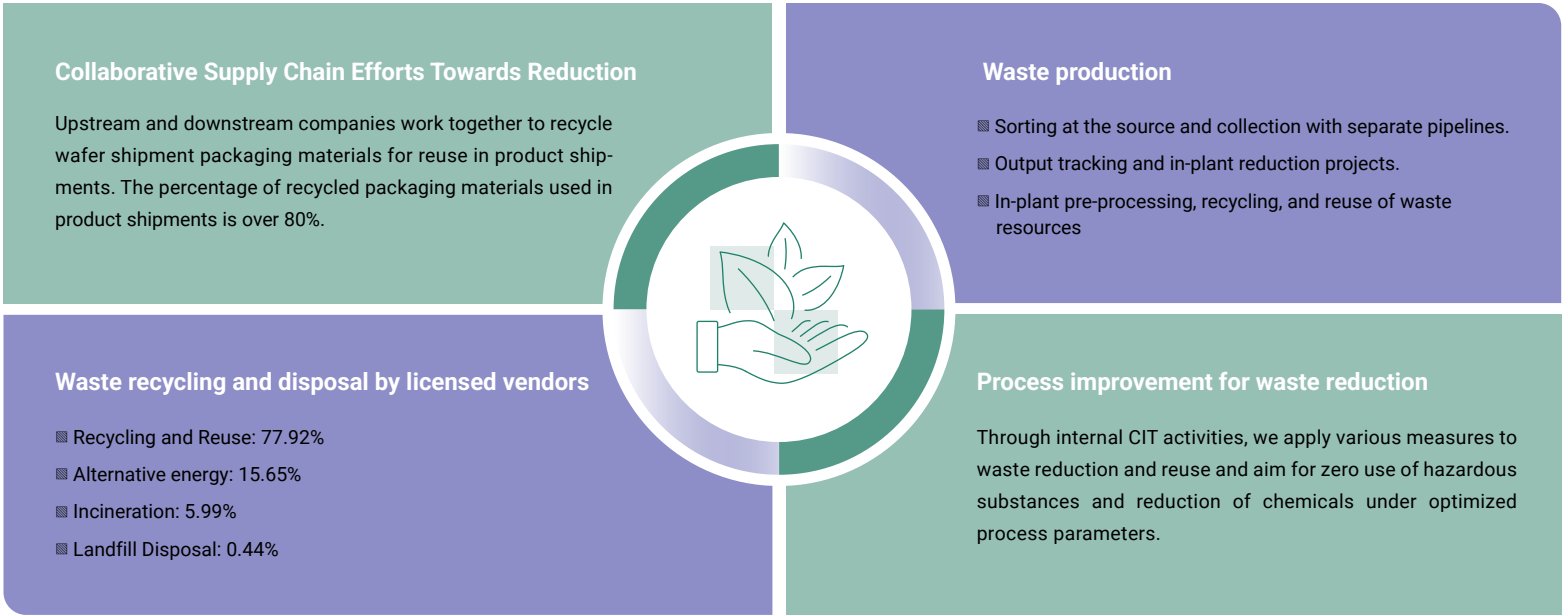


5.4.1 Waste Production and Recycling



VisEra implements green manufacturing and upholds the waste management principle of “minimizing waste generation and maximizing resource circulation”. We prioritize “material recovery” and “energy recovery” over incineration and landfill to ensure maximum resource utilization. In collaboration with the Foundation Of Taiwan Industry Service and material reuse vendors, we convert some waste previously considered to have no reuse value through stream separation and purity enhancement into auxiliary fuel to replace heavy-polluting fuels such as coal and natural gas. In 2025, the recycling and reuse rate (including alternative energy sources) had reached 2,547 tons per year, with a landfill rate of only 0.44%. Furthermore, since the establishment, VisEra has maintained a landfill rate of less than 1% for 20 consecutive years.

Comprehensive waste management process, integrating source reduction and circular economy approaches



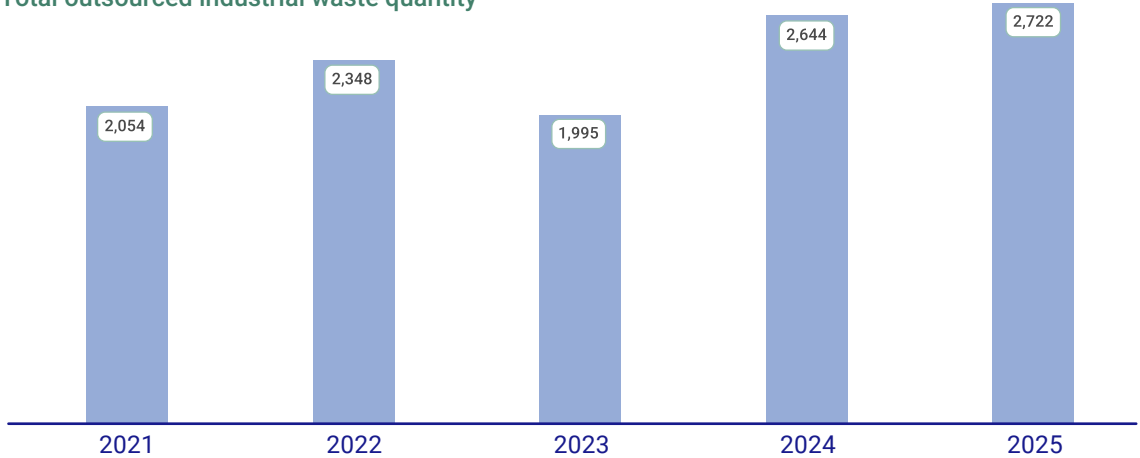
Waste production volume and processing method

Unit : Metric tons		Waste generated	General industrial waste	Hazardous industrial waste	(%)
Resource output after use by VisEra		2,722	724	1,998	100%
Recycling/reuse/disposal by outsourced service provider (waste resources after manufacturing process)	Incineration	163	138	25	5.99%
	Landfill	12	12	0	0.44%
	Alternative energy	426	426	0	15.65%
	Recycled and reproduced products Note 2	2,121	148	1,973	77.92%

Note 1: All VisEra's waste treatment, whether hazardous or non-hazardous, is outsourced or treated off-site.

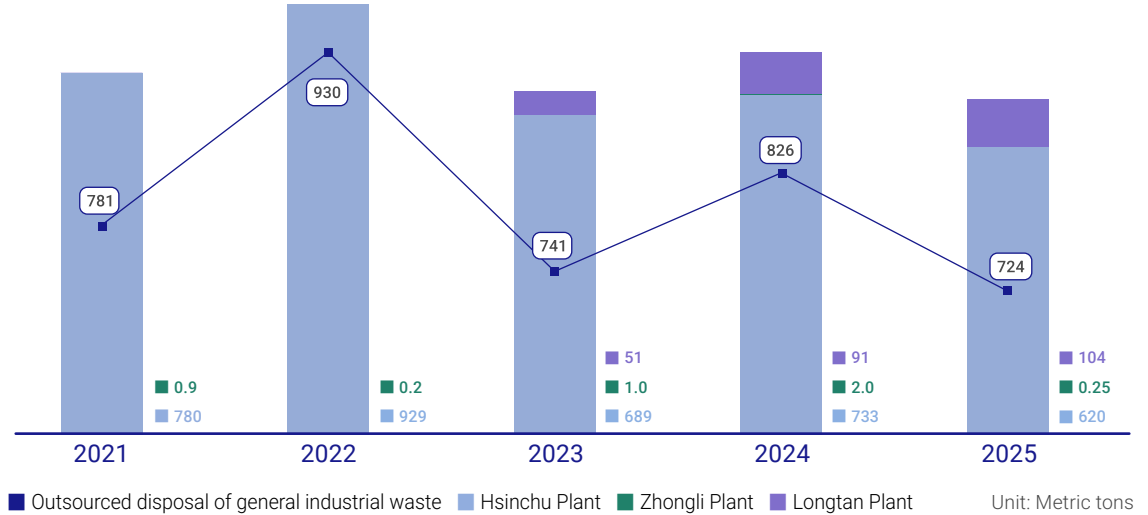
Note 2: Products produced from recycled resources for reuse in other industries. Industries: Materials for the optoelectronics, semiconductors, and chemical industries.

Total outsourced industrial waste quantity



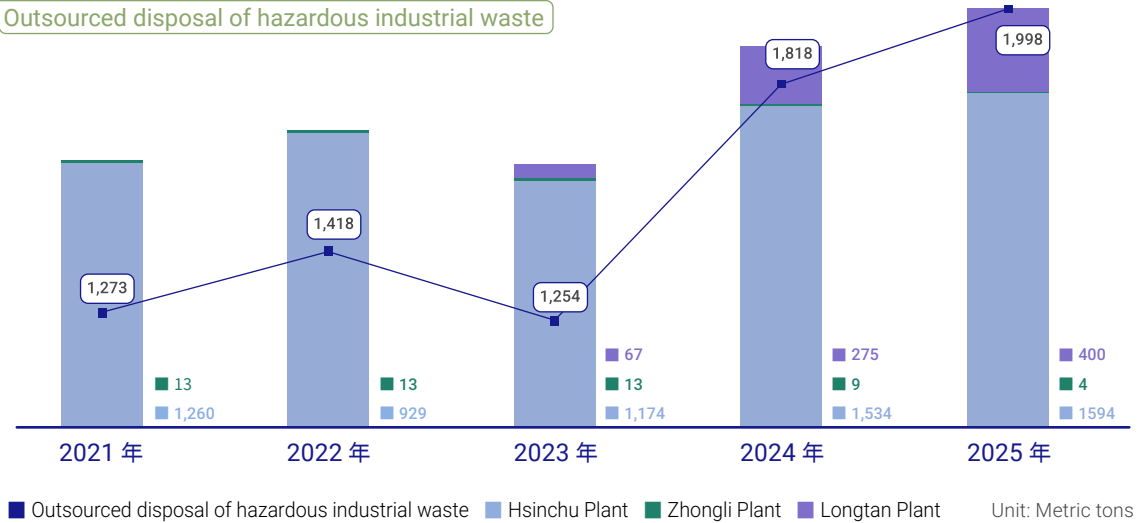
Unit: Metric tons

Outsourced disposal of general industrial waste



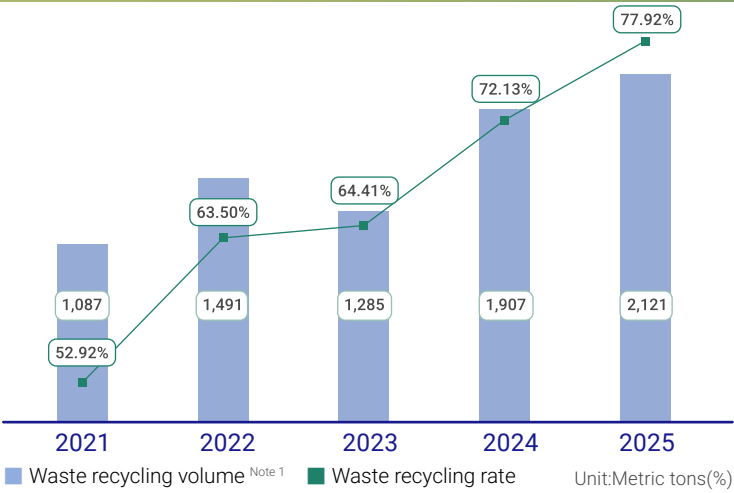
Unit: Metric tons

Outsourced disposal of hazardous industrial waste



Unit: Metric tons

Waste recycling volume



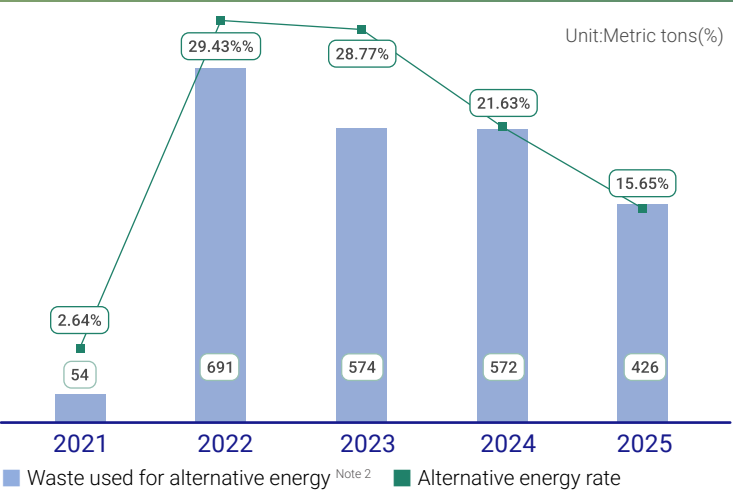
Waste incineration disposal volume



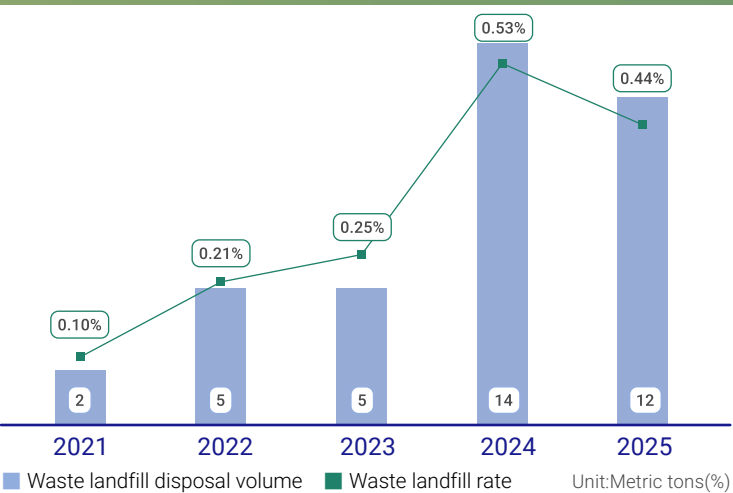
Note 1: Waste recycling methods refer to any waste treatment that does not involve incineration or landfill, such as physical, thermal, or reuse methods, to produce reusable materials or products is classified as waste material recycling.

Note 2: Alternative energy refers to the use of waste materials as fuel to produce heat (generally in the form of steam), which is then used to produce electricity through a steam turbine generator. Alternative energy simultaneously generates thermal steam and electrical power, which can be supplied to industries in need.

Waste used for alternative energy

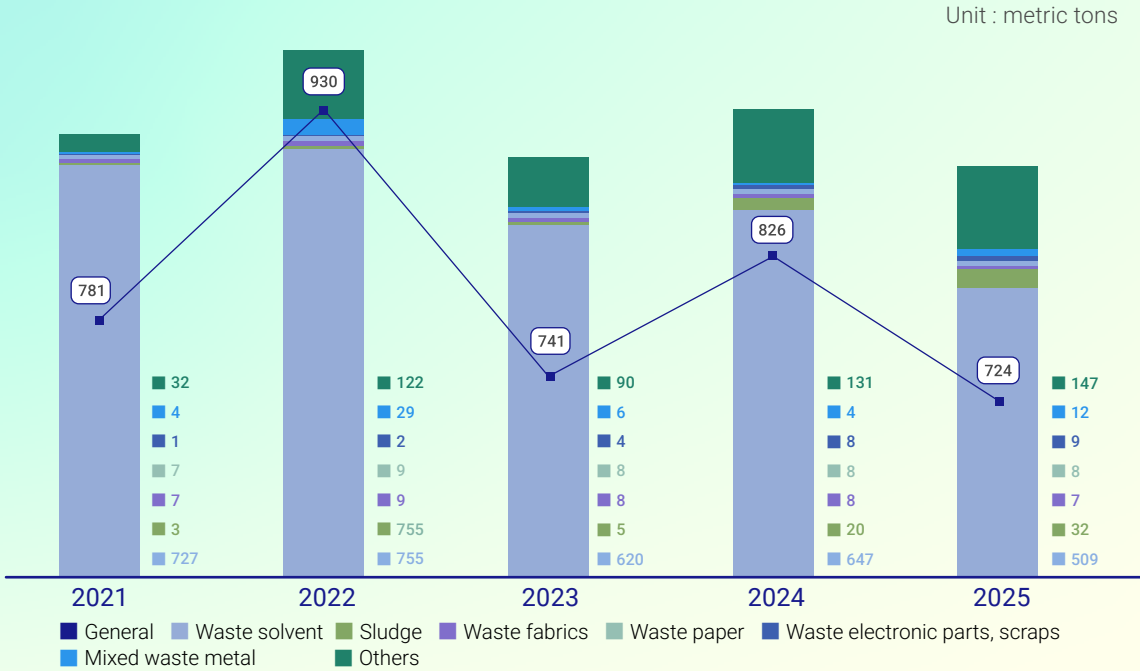


Waste landfill disposal volume

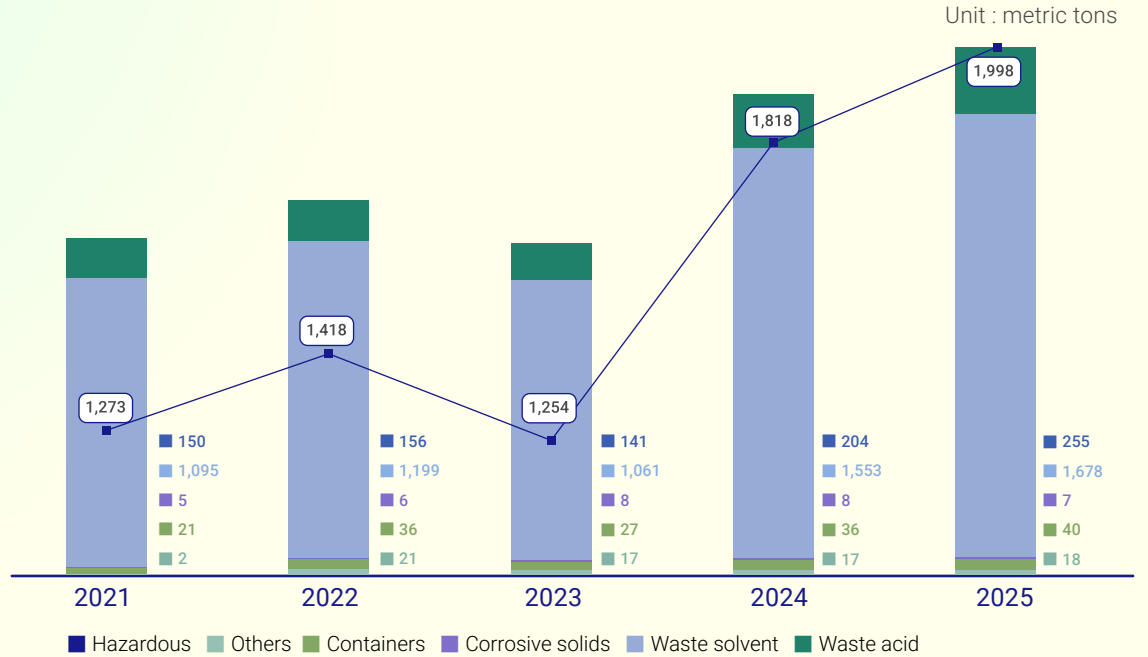


Total waste quantity

General



Hazardous



5.4.2 Circular Economy

VisEra promotes green circularity and improves resource reuse efficiency, such as through process waste solvent reuse and material-saving design, while continuously innovating and adjusting practices to reduce environmental impact.

Case

1

Project Name

Waste solvent reuse

Project Targets

Waste photoresist solution, acetone

Improvement Method

The waste photoresist and waste acetone solvent, originally mixed together, are now segregated and collected separately. After segregation, the waste liquid is sent to external vendors for distillation treatment, producing PGME (Propylene Glycol Monomethyl Ether) and PGMEA (Propylene Glycol Monomethyl Ether Acetate), which are then utilized by other industries as coating materials. The acetone is supplied to other industries for use.

Project Objectives

Waste photoresist: PGME+PGMEA concentration > 85%.
Wastewater acetone concentration >80%

Project Benefits

Items	In-Plant Treatment Method	Disposal Company Treatment Method	Reuse Purpose	2025 Treatment Volume (tons/year)	2025 Economic benefits (NT\$10,000/year)
Photoresist	Separation (46% → 90%)	Distillation (90% → 98%)	Industrial materials (coatings, ink solvents, detergents)	1,283	3,438
Acetone	Separation (52% → 80%)	Distillation (80% → 95%)	Industrial materials (acetone)	395	750.5

Case

2

- Project Name

Waste solvent reuse
- Project Targets

Waste Tetramethylammonium sulfate (TMAX) solvent
- Improvement Method

The TMAH recycling system of the Plant uses resin absorption to remove the TMAH. After running for a certain period of time, it requires the use of sulfuric acid (H2SO4) for desorption and restoration of the absorption capacity of the resin. After the treatment, the waste solvent that contains sulfuric acid is separated by an external vendor to produce TMAH and sulfuric acid. It is used to produce industrial-grade materials for use in other industries to reuse resources and reduce the impact on the environment.



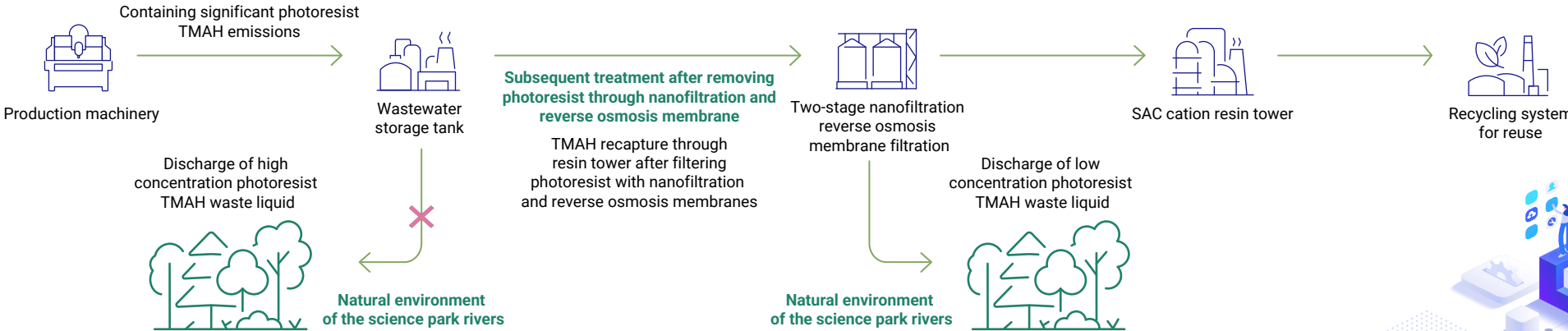
Project Objectives

TMAX concentration >10%

Items	In-Plant Treatment Method	Disposal Company Treatment Method	Reuse Purpose	2025 Treatment Volume (tons/year)	2025 Economic benefits (NT\$10,000/year)
TMAX	Concentration (1% → 10%)	Electrolysis (10% → 25%)	Industrial materials	251	140.5



Project Benefits



Case

3.

Project Name

Product packaging materials

Project Targets

Product packaging material

Improvement Method

Product packaging material recycling and reuse.

Project Objectives

Annual use rate of recycled packaging materials for domestic shipment > 80%

Project Benefits

- 2025 Cost benefit: NT\$2.1 million.
- Calculation method: Annual Purchasing Price of Packaging Materials for Each Size * Annual Recycling Usage of Packaging Materials for Each Size
- 2025 Waste reduction benefit: 12,000 cardboard boxes.

2025 Domestic shipping carton recycling rate reached

90%

Case NEW

4.

Project Name

Material efficiency design - smart pallet boxes

Project Targets

Inter-fab transfer utilizing reusable smart pallet boxes

Improvement Method

In the past, corrugated boxes and styrofoam cushioning materials were utilized for packaging for inter-fab transfers. Transitioning to the use of reusable smart pallet boxes not only leverages their advantages of sturdiness, durability, foldability/stackability, and high load-bearing flexibility, but also brings benefits such as environmental protection and reduction in packaging material costs.

Project Objectives

Annual reduction of 3,500 sets of packaging and styrofoam cushioning materials

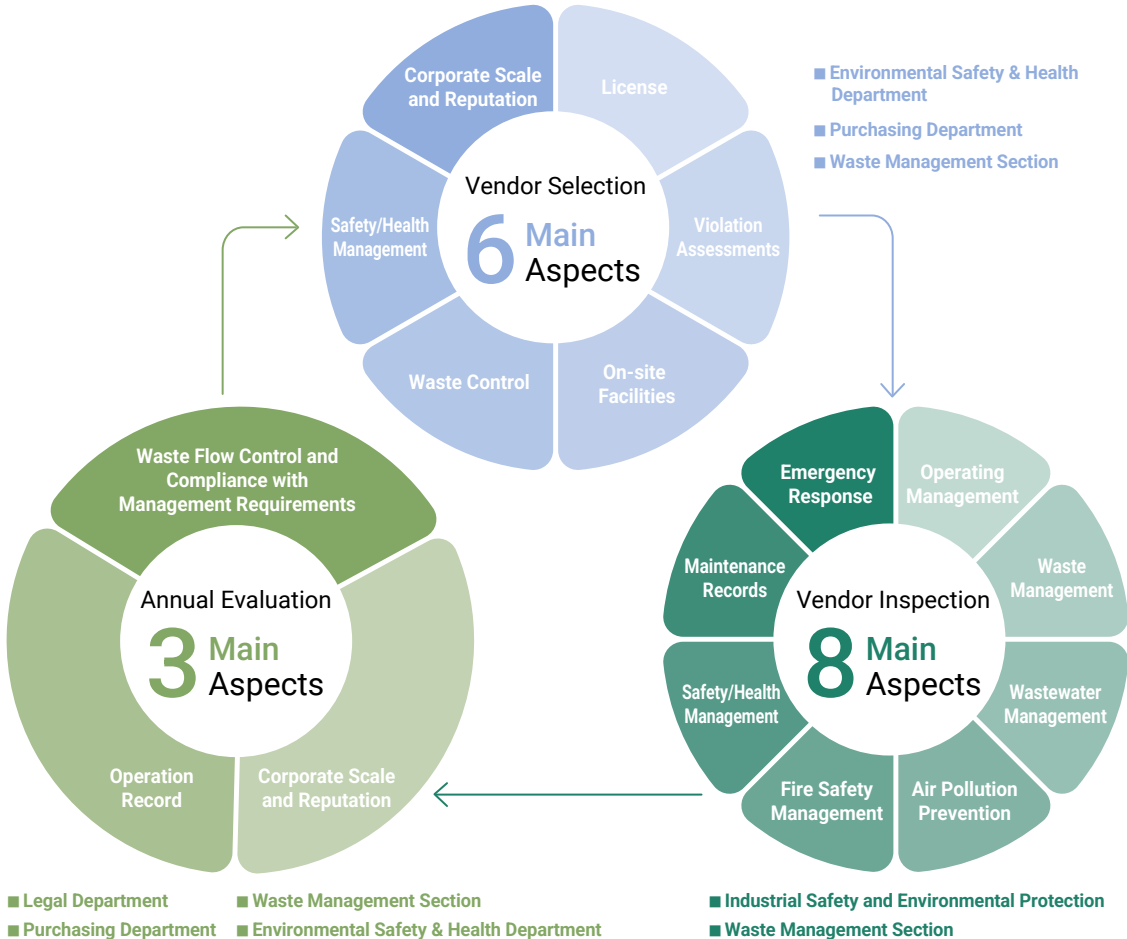
Project Benefits

It can reduce waste by a total of 3,500 sets of cardboard boxes and styrofoam annually, achieving a waste reduction of 6,800 kilograms, which is equivalent to a carbon reduction of 10,200 kilograms of kgCO₂e.

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5.4.3 Waste Disposal Contractor Management

The business waste generated by VisEra is entirely outsourced for clearance, disposal, and flow tracking to high-quality vendors permitted by environmental authorities and selected by the Company. The selection mechanism involves relevant departments screening eligible vendors based on six major dimensions, followed by on-site audits. Those whose scoring results meet the standards become the Company's waste disposal vendors according to internal procurement procedures. In addition, the Company reviews vendors regularly every year based on the "Annual Evaluation of Waste Disposal Vendors" as the basis for vendor replacement assessments. Through face-to-face communication with vendors, VisEra strengthens management workflows and encourages vendors to promote these workflows, collectively striving for environmental sustainability.



Results of audits and inspections of waste disposal service providers in 2025

Deficiency Category	Count	Regulatory compliance correction	Onsite Environment/ Implementation	Standard Operating Procedures
Waste Management	Deficiencies	0	NA	-
	Recommendations	2	NA	CCTV recording retention is currently 2-4 months; it is recommended to extend this to at least 12 months. It is recommended to include waste inspection and monitoring mechanisms, alongside audit standards for waste disposal vendors.
Safety and Health Management	Deficiencies	0	NA	-
	Recommendations	1	NA	Alcohol testing records prior to vehicle dispatch have been implemented; it is recommended to add blood pressure measurement logs.

5.5 Air Pollution Prevention

Stable Operation of Air Pollution Control Equipment

The air pollution prevention capabilities of VisEra meets the regulations in the “Air Pollution Control and Emissions Standards for the Semiconductor Industry” and “Standards for Air Pollutant Emission from Stationary Pollution Sources”. To ensure stable 24-hour year-round operations pollution prevention equipment, all air pollution prevention equipment must be equipped with at least one backup system (N+1 design) and a DC backup system to prevent power interruption. The design is implemented to ensure zero failure of the prevention equipment and ensure stable and continuous pollution monitoring. In addition, VisEra also set up automatic monitoring facilities to monitor the effectiveness of waste gas treatment in all systems. Related information is reported to the on-duty office of plant operations and the Occupational Safety and Environmental Protection Emergency Response Center to operate the independent dual-track monitoring system and ensure that the stack emissions meet regulatory requirements.

Multi-level Air Pollution Control Strategies

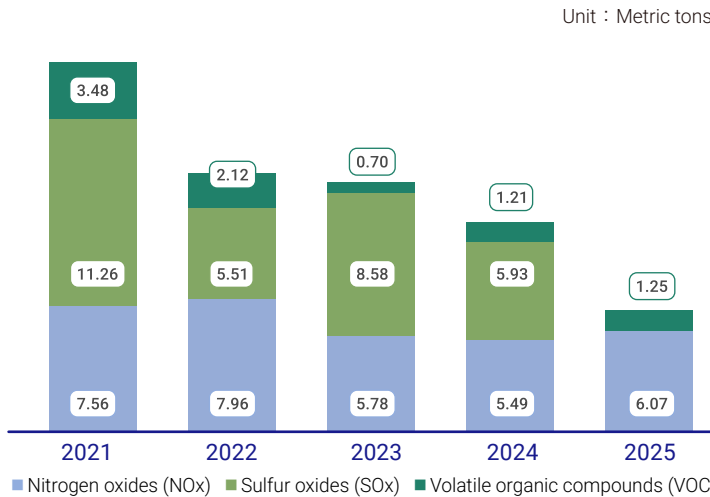
VisEra’s air pollutants can be divided into acidic and alkaline gases and volatile organic gases. We adopted “separation of emissions at the source” and “best available technology for multi-section processing system” as our strategy for air pollution prevention so that the pollutant levels meet (or are superior to) government environmental protection regulations. The first stage for separation of emissions at the source is implemented for acid and alkaline process waste gas that are corrosive, flammable, greenhouse gas, or perfluorinated compounds as determined based on process characteristics. We added high-performance air treatment local scrubbers to effectively treat process emissions. Finally, the inorganic acid and alkaline gases are directed to the central scrubber for the second-stage of water neutralization process in the terminal pollution prevention equipment. For volatile organic gases, we determine whether to install treatment equipment such as local condensers based on their boiling points. We then direct the process emissions to the zeolite rotor concentrator system for treatment. With separation at the source and two-stage treatment, we enhance the efficiency of air emission treatment across the board.

Equipment Upgrades and Continuous Optimization of Emissions Management

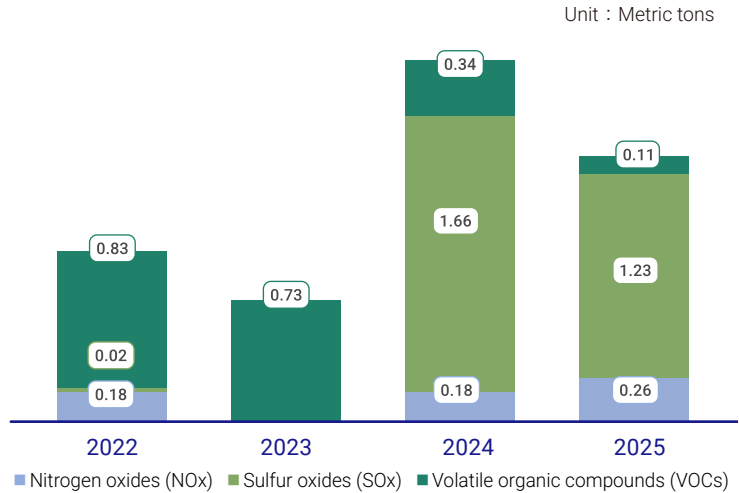
To improve the reduction rate of organic exhaust central treatment waste gas system, a budget will be allocated year by year starting from the end of 2021 to replace zeolite rotors, and three sets of old equipment will be replaced with high-efficiency zeolite rotors by 2025. As a result, VisEra’s air emissions have consistently met (exceeded) the standards for emissions set by the EPA. With our early warning mechanisms and immediate response to issues, there were no anomalies involving pollutant emissions that were reported to the competent authority in 2025.

Total air pollutant emissions

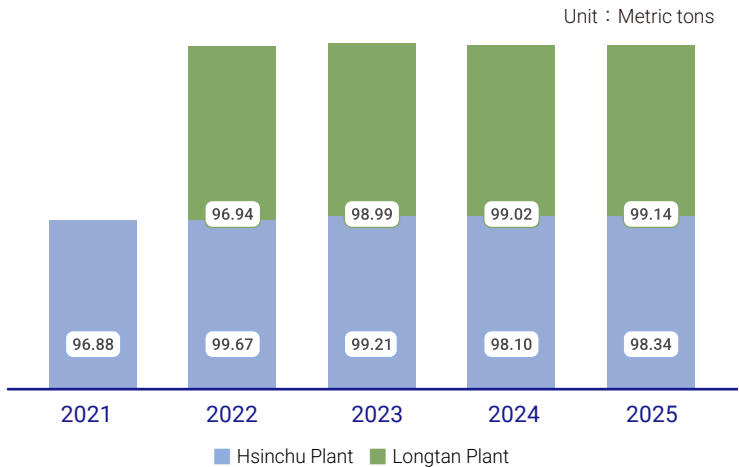
Hsinchu Plant



Longtan Plant



Volatile Organic Compounds (VOC) Reduction Rate

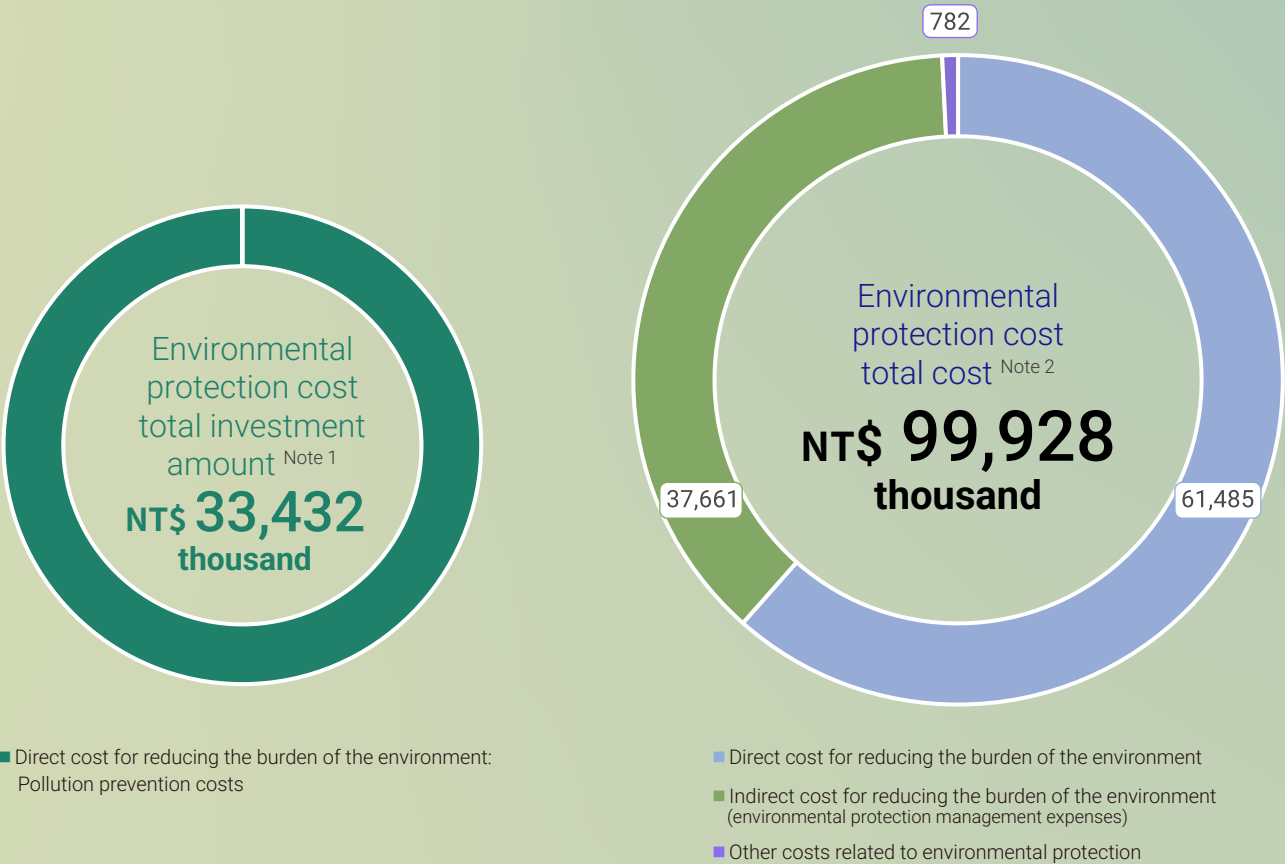


Note 1: Air pollutant emissions included nitrogen oxides (NOx), sulfur oxides (SOx) and volatile organic compounds (VOCs). Volatile organic compounds (VOCs) are continuously monitored by the FAC Dept.

Note 2: The SOx and NOx are tested once every five years in accordance with regulatory requirements, so the Longtan plant was not tested in 2023, and the Hsinchu plant was not tested in 2025.

5.6 Environmental Protection Expenditures and Investments

By upholding the philosophy of attaining coexistence and common prosperity in business growth and the ecological environment, VisEra is committed to the full implementation of environmental pollution prevention actions to protect the local environment and increase the value of the Company. In 2025, the environment investment cost amounted to NT\$33,432 thousand on hardware facilities such as waste water and waste gas treatment equipment and the cost on the hardware annually. The total environmental protection expenses were NT\$99,928 thousand, mainly covering all expense including the depreciation expense, research and development, human resources, motivation, maintain, examine, material, entrust, education, donation and other expenses.



Unit: NT\$

Note 1: Total investment refers to the actual amount spent on hardware facilities during the year.
 Note 2: Total expenses refer to all costs including annual equipment depreciation, R&D, human resources, motivation, maintain, examine, material, entrust, education, donation, and other expenses.

Biodiversity Conservation and Environmental Education Volunteer Training Action

Local Ecological Guardianship Practice Centered on Xipuzi Artificial Wetland

VisEra is deeply aware that biodiversity is critical to maintaining ecological balance and corporate sustainable development. We commit to incorporating biodiversity conservation and natural capital management into our environmental sustainability strategies. We are dedicated to reducing the negative impact on the environment during our business operations. Through collaboration with government agencies and local communities, we fulfill our responsibility for environmental guardianship. We further view biodiversity as an important indicator for promoting corporate social responsibility to ensure the sustainable circulation of natural resources and actively respond to corporate responsibilities for the protection of the natural environment. Looking ahead, VisEra continues to pay attention to international sustainability trends and prudently evaluates the feasibility of incorporating the Taskforce on Nature-related Financial Disclosures (TNFD) framework into our management tools to steadily realize the long-term vision of a harmonious coexistence between enterprise and nature.

Local Wetland Adoption and Environmental Management Measures

In 2025, VisEra cooperated with the Hsinchu City Environmental Protection Bureau to adopt the Xipuzi Artificial Wetland Park in the North District of Hsinchu City and invested in wetland ecological conservation and environmental quality maintenance through concrete actions. During the adoption period, the Company established a regular management mechanism. Our colleagues visit the site monthly to perform environmental maintenance operations, including wetland environment cleanup, habitat inspections, and basic water quality testing, to continuously keep abreast of the status of the water environment and ecological change trends.

Through regular monitoring and recording, VisEra is able to identify potential environmental risks in real time and use this as a basis for subsequent improvement measures and ecological restoration planning, thus demonstrating the Company's continuous investment in environmental management and ecological protection.

Biodiversity Examination and Restoration Actions

To strengthen the effectiveness of biodiversity protection, VisEra completed a preliminary ecological survey of the Xipuzi Artificial Wetland in 2025. This survey examined species distribution and habitat conditions within the area, providing foundational data for restoration actions. Based on the findings, we plan to progressively promote restoration

measures for representative and indicator species, such as fireflies and butterflies. Through habitat optimization and eco-friendly management practices, we aim to enhance wetland biodiversity and ecosystem stability.

Environmental Education Promotion and Local Learning Practice

Beyond ecological conservation, VisEra actively promotes environmental education. In 2025, we led students from Wen-Xiao Elementary School to the Xipuzi Artificial Wetland for practical environmental education courses. Through on-site observation and explanations, we guided the students to understand how artificial wetlands purify domestic sewage through natural mechanisms and clarified the roles and functions of aquatic plants, microorganisms, and wetland systems in water quality improvement.

By learning on-site, we help students build basic awareness of water resource protection and ecological cycles, deepen their understanding of the value of the natural environment, and enhance their consciousness of environmental protection. This activity also fosters connections between the Company and local schools and expands the substantive influence of environmental education.

Environmental Education Volunteer Training and Promotion Mechanism

VisEra values the role of employee participation in environmental sustainability actions. We encourage colleagues to participate voluntarily in environmental education instructor training to cultivate environmental education volunteers equipped with conservation and ecological knowledge. Starting in 2026, the training results are expected to be officially integrated into a volunteer rotation system for the Xipuzi Artificial Wetland, where trained colleagues will participate in site tours, ecological explanations, and environmental education promotion work.

In the future, the Company will enhance its wetland adoption and ecological management efforts. By combining diverse aspects such as ecological monitoring, species restoration, school environmental education, and industry-academia cooperation, we will establish a long-term and continuous management mechanism for biodiversity and environmental education, thus gradually expanding the Company's positive influence on natural environment protection and sustainable development.

