

Greenhouse gas reduction planning

In accordance with the Company's net-zero policy: We will continue to evaluate the energy efficiency of various equipment in the future, focusing on process improvement, energy conversion, and circular economy. We will prioritize energy efficiency when replacing equipment and promote low-carbon education and energy conservation and carbon reduction concepts internally to reduce greenhouse gas emissions.

Greenhouse gas reduction efforts began in 2013, with emissions (direct and energy indirect) of 235,798.276 metric tons of CO₂e recorded in 2013. Carbon reduction targets are set every five years, and a reduction of 13,233 metric tons of CO₂e was achieved in 2024, representing cumulative reduction of 52,601 metric tons of CO₂e and a cumulative reduction of 22%. The Company expects to achieve a cumulative reduction of 25% by 2028.

The main greenhouse gas reduction targets for 2025-2028 are as follows:

Net-Zero Emissions Strategy	Action plan
Process Improvement	- Establish a voluntary reduction plan. - Continuously plan and implement energy-saving measures, such as replacing old, high energy-consuming equipment with more energy efficient models, etc.
Energy Transformation	- Plan to install solar panels. - Solar energy is converted to self-generation and self-use. - Increase natural gas usage and reduce coal consumption. - Establish energy storage system to reduce energy waste.
Circular Economy	- Sustainable development of green and environmentally friendly products: GRS and ISCC certified products. - Increase the proportion of revenue from green products.

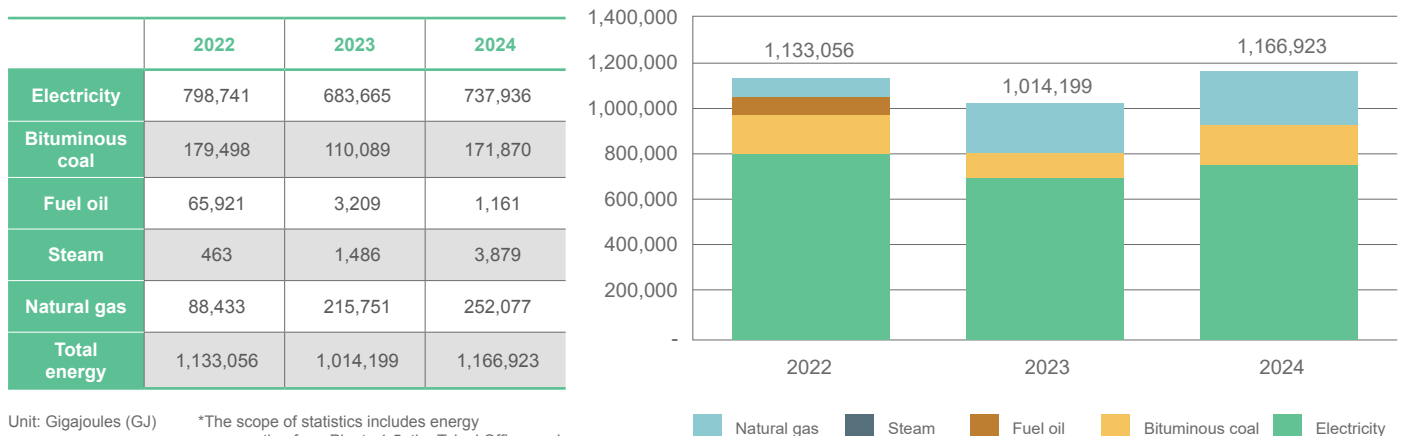
4.2.2 Energy Management

Zig Sheng is committed to achieving the Energy Administration's target of an average annual electricity savings rate of at least 1% from 2015 to 2024, and continues to promote its energy management plan to ensure efficient resource utilization. Zig Sheng's energy management plan incorporates a range of initiatives designed to meet annual energy savings targets through energy efficiency improvement projects, including equipment upgrade, adoption of high-performance machinery, and process optimization. To align with global trend of sustainable development, we have set a long-term goal of reducing electricity consumption by 30% by 2030, with 2021 set as the base year, and are progressively reducing overall energy consumption.

To increase the proportion of green energy used, we plan to invest in solar power generation equipment to reduce our dependence on conventional energy sources. We will also actively adopt energy storage solutions to enhance energy efficiency, minimize waste, and guarantee a stable energy supply. In recent years, we have actively sought assistance from external professional consultants and technical teams to evaluate and introduce more advanced energy-saving technologies and management strategies to ensure that our energy management plans can be continuously optimized and meet the latest environmental protection and energy-saving requirements. Through these measures, Zig Sheng will continue its efforts to achieve energy conservation and carbon reduction goals, fulfill its corporate social responsibility, and contribute to environmental sustainability.

(1) Energy Consumption Statistics

To continuously save energy and reduce carbon emissions while considering our use of electricity, fuel oil, natural gas, bituminous coal and steam, we aim to consume less energy each year compared to the previous year.



(2) Energy Saving Results

To comply with the Energy Administration's energy conservation target of achieving an average annual electricity savings rate of at least 1% from 2015 to 2024, Zig Sheng has continued to propose energy saving plans and tracked its progress since 2015. Each factory controls energy use from the demand side, achieving a balance between energy supply and demand through monitoring, control, and optimization of energy use. Through years of effort, overall energy efficiency has been significantly improved. With an investment of approximately NT\$11.39 million in 2024, actual electricity savings reached 2.78 million kWh, which reduced energy consumption by approximately 10,008 GJ and carbon emissions by approximately 1,373 tons of CO₂e. From 2015 to 2024, the Company achieved an average annual electricity savings rate of 1.21%, accumulating a total savings rate of 12.07%.



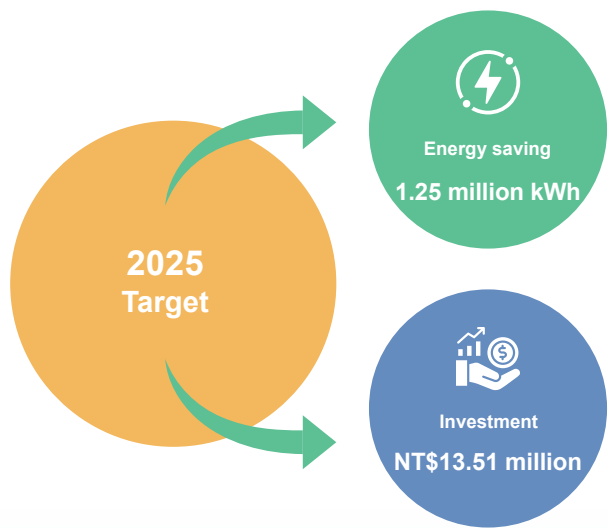
Achievement of electricity saving targets in 2024

Electricity saving targets	Actual electricity saving	Power Saving Programs	Electricity saved (MWh)
1.03 million kWh	2.78 million kWh	Air compressors replacement	2,452
		Replacing chillers	166
		Replacing equipment and adding variable-frequency drives	77
		Adding level controllers	11
		Tube lights are replaced by LED lights	23
		Current reduction operations	47

*Carbon reduction was calculated based on the 2023 electricity emission factor of 0.494kgCO₂e/kWh *Energy consumption 1GJ=1kWh*3.6

(3) Energy Saving Planning

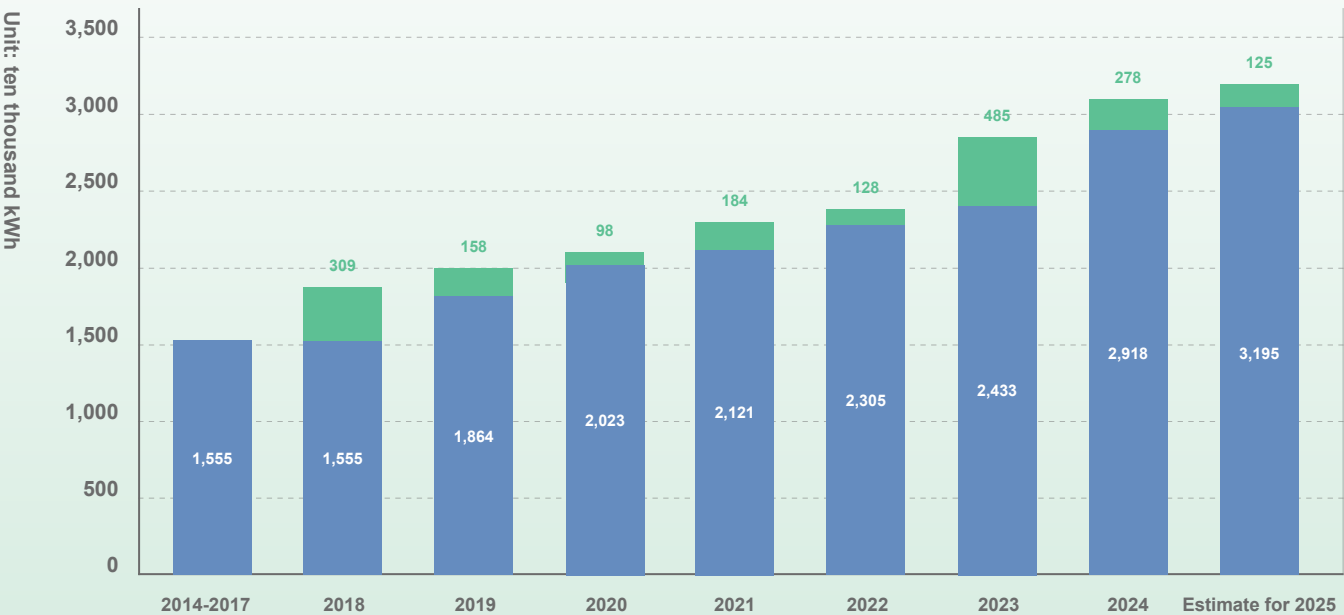
Power Saving Programs	Estimated electricity savings (MWh)
Air compressors replacement	490
Replacing equipment and adding variable-frequency drives	71
Adding level controllers	1
Current reduction or regulating operations	646
Introduction of high-efficiency fan blades in cooling towers	42



The cumulative carbon reduction from electricity savings reached 16,546 tons of CO₂e in 2024, and is expected to reach 17,163 tons of CO₂e by 2025.

Cumulative Energy Saving Statistics Table

Cumulative Energy Savings Energy Saved During the Year



Calculation method:
According to the announcement of the Energy Administration, annual electricity savings refer to annual electricity savings from the implementation of various electricity saving measures implemented by Zig Sheng. The calculation period starts from the month following the implementation date and is limited to a maximum of 12 months. However, if the calculation period crosses the calendar year, the electricity savings is to be calculated on a yearly basis.
(Energy consumption before improvement - Energy consumption after improvement) * Operating hours during the reporting period

*Carbon reduction is calculated based on the electricity emission factor published in the annual electricity saving report.

4.2.3 Water Resource Management

Zig Sheng continues to collect statistics on the water consumption of each unit, review whether there is unreasonable water consumption on a monthly basis, and implement improvements as needed. The plant has two wastewater treatment facilities, where the treated water is regularly tested for discharge quality. The facilities adhere to approved water pollution prevention plans and possess the required permits. The primary water sources are tap water and recycled water. In recent years, the Company has been planning water-saving initiatives, such as rainwater recycling system, reclaimed water recycling, condensate water recycling, etc. In addition to water conservation in the process, we also continue to promote the importance of water conservation in daily life. Based on average water consumption over the past five years, the goal is to reduce consumption by 2% each year. The 6.9% reduction in water consumption in 2024 exceeded the target value.

Main water conservation plans for 2024:

Water-saving initiatives	Results
The pure water system has been changed to RO/EDI/MD	Recycled water increased by 13,045 tons, reducing wastewater by 13,045 tons, reducing hydrochloric acid usage by 30,670 kg, and reducing liquid caustic soda usage by 38,377 kg. Additionally, the conductivity and oxygen content of pure water also dropped to below 1 ppm, significantly improving quality.
Air compressor condensate was recycled and reused,	recovering 335.8 tons of water.
Reuse of waste liquid distilled water	recovering 9 tons of water.

The water consumption of each factory in Taoyuan is as follows:

Water consumption statistics		
Year	Water consumption (tons)	Density
2022	545,553	3.18
2023	512,364	3.35
2024	588,123	3.29

Note: Intensity = Water consumption (tons) / Output (tons)

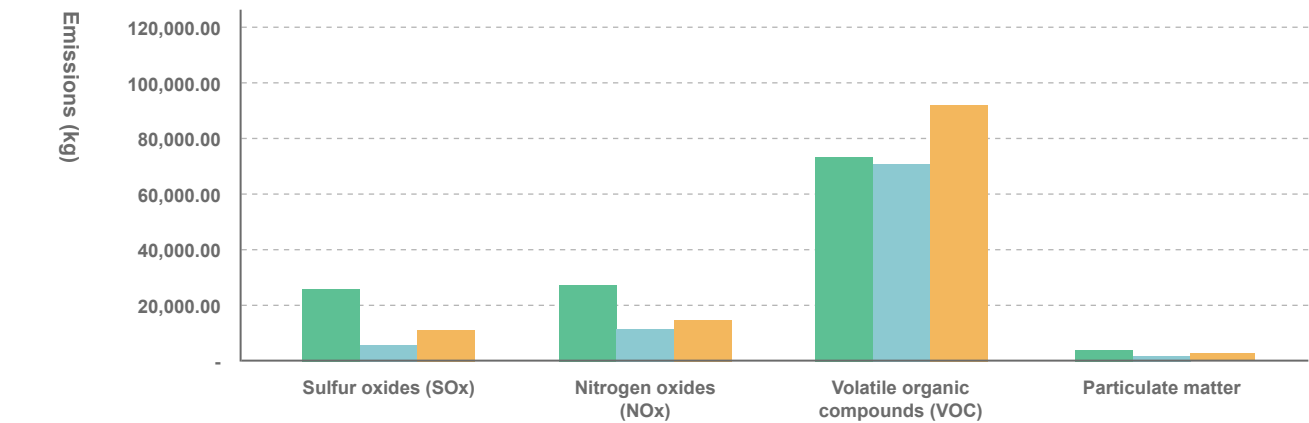
4.3 Energy Transformation

4.3.1 Natural gas

Since 2020, we have gradually converted seven oil-fired boilers to natural gas boilers to reduce emissions and comply with regulatory standards. In 2024, we used 6,080 m³ of natural gas, reduced coal use, and reduced carbon emissions by approximately 8,554 metric tons of CO₂e. We plan to replace another heavy oil boiler burner with natural gas burner before the end of 2025 and install a high-efficiency air preheater to lower exhaust gas temperature and increase combustion air temperature, thereby reducing natural gas consumption. In 2024, the increase in overall air pollutant emissions was due to increased production and adjustments to energy usage ratios based on cost considerations.

Year-by-year comparison of air pollutant emissions

Note: Calculated based on the emission coefficients announced by the Ministry of Environment



Year	Sulfur oxides (SOx)	Nitrogen oxides (NOx)	Volatile organic compounds (VOC)	Particulate matter
2022 Total	24,833.17	27,611.26	74,991.52	2,692.87
2023 Total	5,979.93	10,236.66	70,845.24	1,052.08
2024 Total	10,035.77	16,561.81	90,320.99	1,464.42