

統一編號:16755427

Linear Motion Technology

台南市南部科學工業園區新市區大利一路3號

Greenhouse gases emissions, energy efficiency and carbon reduction

In accordance with the push of Republic of China's "Greenhouse Gas Reduction and Management Act", **cpc** aims to decrease in-plant temperature, replace air conditioning system and reduce energy consumption by raised design, adding outer walls and adopting natural circulation for ventilation & heat dissipation based on energy saving and carbon reduction during factory design and reducing greenhouse gas emissions. However, the main source of greenhouse gas emissions is electricity. Therefore, power saving and other energy-saving projects are the company's main environmental protection management goals:

- 1. Carbon reduction targets
 - (1) Following the ISO50001 standard, cpc aims to save energy in accordance with the provisions of Articles 8, 9 and 12 of the Energy Administration Act. Energy users whose energy consumption meets the level stipulated by the Government, shall establish its own energy audit system and set objectives for energy conservation and execution, in order to achieve an annual energy saving rate of more than one percent.
 - (2) According to the data provided by Bureau of Energy, Ministry of Economic Affairs, the energy savings and carbon reduction measures for the year 2019 produced 0.509kg of CO₂ per kilowatt hour, while the amount of electricity saved was 150,393.6 degrees, and carbon reduction of 76550.34 kg.
 - (3) According to the data provided by Bureau of Energy, Ministry of Economic Affairs, the energy savings and carbon reduction measures for the year 2020 produced 0.502kg of CO₂ per kilowatt hour, while the amount of electricity saved was 99,400 degrees, and carbon reduction of 49898.8 kg.

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- (4) According to the data provided by Bureau of Energy, Ministry of Economic Affairs, the energy savings and carbon reduction measures for the year 2021 produced 0.509kg of CO₂ per kilowatt hour, while the amount of electricity saved was 94078.6 degrees, with carbon reduction of 47,886 kg as the target.
- (5) According to the data provided by Bureau of Energy, Ministry of Economic Affairs, the energy savings and carbon reduction measures for the year 2022 produced 0.495kg of CO2 per kilowatt hour, while the amount of electricity saved was 304,956.96 degrees, with carbon reduction of 150,953 kg as the target.
- (6) According to the data provided by Bureau of Energy, Ministry of Economic Affairs, the energy savings and carbon reduction measures for the year 2023 produced 0.494kg of CO2 per kilowatt hour, while the amount of electricity saved was 284,575.33 degrees, with carbon reduction of 140,580 kg as the target.
- (7) According to the data provided by Bureau of Energy, Ministry of Economic Affairs, the energy savings and carbon reduction measures for the year 2024 produced 0.494kg of CO2 per kilowatt hour, while the amount of electricity saved was 29,606 degrees, with carbon reduction of 14,625 kg as the target.
- 2. Energy saving and carbon reduction measures
 - (1) The energy savings measures done in 2019 were the replacement of 200hp air compressors with high-efficiency screw air compressors. The estimation of power consumption can be reduced by 150,393.6 degrees of about 1.29% and carbon reduction of about 76550.34 kg.
 - (2) The energy savings measures done in 2020 were the Replacement of traditional 40 of 500W projection lamps, and the estimation of power consumption can be reduced by 99,400 degrees of about 1.20% and carbon reduction of about 49898.8 kg.

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- (3) The energy savings measures done in 2021 were the On-site AIR pipeline damage replacement, and the estimation of power consumption can be reduced by 94078.6 degrees of about 0.98% and carbon reduction of about 47,886 kg.
- (4) The energy savings measures done in 2022 were, the power saving measure was to replace the operating parts of the SIGMA 5100 wheel grinding machine, and the estimation of power consumption can be reduced by 304,956.96 degrees of about 2.75% and carbon reduction of about 150,953 kg.
- (5) The energy savings measures done in 2023 were, KENT surface grinding machine, SIGMA 2500 wheel grinding machine (replacement of screw and bearing), and the estimation of power consumption can be reduced by 284,575.33 degrees of about 3.08% and carbon reduction of about 140,580 kg.
- (6) The energy savings measures done in 2024 were, Dryer #2 compressor damage replacement plan and Nanke Factory high-altitude patio light replacement plan, and the estimation of power consumption can be reduced by 29,606 degrees of about 0.35% and carbon reduction of about 14,625 kg.
- (7) The company cooperates with Republic of China 's green energy development goals to by using solar energy at the Shugu Plant. The solar equipment can reach up to 181kw.
- 3. The company's greenhouse gas emissions, water consumption and total waste weight and management policies in the past two years.

For the company's greenhouse gases emissions, the direct emission sources are mainly from purchased electricity. From 2020 to 2024, it was 8,705.4 degrees Celsius in 2020, 9,537 degrees Celsius in 2021, 10,547 degrees Celsius in 2022, 8,924 degrees Celsius in 2023 and 8,411 degrees Celsius in 2024. The company's total emissions in 2020 were approximately 4,370.110 metric tons of CO₂ e/year,

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2021 were 4,854.434 metric tons of CO2 e/year, 2022 were 5,220.963 metric tons of CO2 e/year, 2023 were 4,417.578 metric tons of CO2 e/year and 2024 were 4155.231 metric tons of CO2 e/year. In response to the environmental impact caused by greenhouse gases, we will promote the reduction of greenhouse gases emissions, achieve sustainable energy development that takes into account cost and resource efficiency, energy conservation, and environmental protection.

Year	2020	2021	2022	2023	2024
Total Power Consumption (KWh)	8,705,400	9,537,200	10,547,400	8,924,400	8,411,400
CO2Emissions (mt)	4370.110	4854.434	5220.963	4417.578	4155.231
Energy Bureau of the Ministry of Economic Affairs	0.502 kg CO ₂ emission per kWh energy generated	0.509 kg CO ₂ emission per kWh energy generated	0.495 kg CO ₂ emission per kWh energy generated	0.494 kg CO ₂ emission per kWh energy generated	0.494 kg CO ₂ emission per kWh energy generated

The main energy consumption of the company comes from purchased electricity. In the past two years, the main source of emissions is purchased electricity, accounting for more than 82% of the overall emissions, and the rest is diesel from emergency generators, gasoline from official vehicles, refrigerants, septic tanks,

and WD-40).

Year	greenhouse gas emissions (tonCO2e)
109	5354.76
110	4900.43
111	5331.52
112	5126.50



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Improving energy efficiency in 2024: cpc's Shugu Phase I installed renewable energy equipment with a solar photovoltaic system. The solar equipment has an installation capacity of 268.46KW, an installation area of 1403.52 square meters, and 866 solar panels installed. The power generation of one solar panel is 310W, and the annual solar power generation is 341,244 kWh. According to the recently announced annual power carbon emission coefficient of 0.494 kg CO2/kWh by the Energy Bureau, it can reduce 168,574 metric tons of CO2 emissions and increase the use of renewable energy by 4.05%.

cpc's Shugu Phase II installed solar power generation equipment of 999.81KW, with an installation area of 4942.26 square meters and 3,225 solar panels. Each solar panel generated 310W. The solar power generation in 2024 was 1,338,016 kWh. According to the 2023 electricity carbon emission coefficient recently announced by the Energy Bureau of 0.494 kg CO2/kWh, it can reduce 660.979 metric tons of CO2 emissions and increase the use of renewable energy by 15.9%.

The company will install 999.81KW solar power generation equipment in the second phase of Shugu new plant to increase the consumption of renewable energy.

Renewable energy usage efficiency				
Year	2021	2022	2023	2024
Solar power	252 806	221 106	007 801	1 670 260
generation degree	552,090	221,100	997,004	1,079,200
CO2 emissions	170 624	100 447	402.015	
reduced (metric tons)	1/9.024	109.447	492.915	629.554
Increase the use of	2 70%	2 1 0%	11 100%	2007
renewable energy	5.70%	2.1070	11,1070	2070
Energy Bureau of the	0.509 kg CO ₂	0.495 kg CO ₂	0.494 kg CO ₂	0.494 kg CO ₂
Ministry of Economic	emission per kWh	emission per kWh	emission per kWh	emission per kWh
Affairs	energy generated	energy generated	energy generated	energy generated



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The water consumption of the company from 2020 to 2023 is as follows:

Year	Water consumption	Number of employees	Average water consumption
	(cubic meter)	(average)	(cubic meter)
2020	37,306	409	91.21
2021	36,038	386	93.36
2022	35,054	442	79.31
2023	36,954	397	93.08

The total weight of waste in the company from 2020 to 2024 is as follows:

Veer	Total weight of waste (metric tons)			
rear	Hazardous waste	Non-hazardous waste		
2020	0	321		
2021	0	378		
2022	0	334		
2023	0	217		
2024	0	146		

The company's water consumption and total waste weight have been verified by the ISO 14001 environmental management system. The verification process is carried out with water pollution prevention measures and waste management plans, and is coordinated with the environmental protection permit management of the Environmental Protection Agency information system to validate the data. Water resource management or reduction goals:

- Rainwater recycling: Use the rainwater in the rainwater recycling tank to flush toilet urinals, toilets, and planting spray tanks to reduce tap water consumption.
- 2. Recycling of cutting fluid from waste grinding sand: During the manufacturing process, waste grinding sand will be produced after grinding, and the waste grinding sand contains an average of 37% cutting fluid. The cutting fluid is



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filtered out by a centrifugal dehydrator and then recycled to the machine for circulation Utilize, reduce tap water addition.

Waste Management Policy or Reduction Target:

- 1. Manufacturers recycle wooden boxes for reuse, reducing waste wooden boxes and reducing tree felling.
- 2. Recycle pallets, wooden boxes, etc. for shipping packaging or inventory management.
- 3. Pallets and wooden boxes that cannot be used in the factory must be declared for reuse by the Ministry of Environmental Protection. Legal reuse companies will recycle and use them to make recycled pallets and boxes. The rest will be made into wood chips for boiler manufacturers to use as fuel.
- 4. Utilize cutting fluid recovery from waste grinding sand to reduce the weight of waste grinding sand transportation.
- 5. Carry out waste resource classification and recycling.
- 6. After the lubricating oil produced by the machines in the factory is separated by the oil-water separator in the second-phase recycling plant, it is poured into an iron bucket and left to stand. After a certain amount is reached, it will be declared to the Ministry of Environmental Protection and recycled by a legal recycling company. , the waste oil is made into recycled fuel oil and used as fuel by boiler manufacturers to reduce environmental impact.