



ESG
Sustainability Report
CHANG WAH ELECTROMATERIALS INC.

2022

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About Our Report

Overview and Preparation Principles of the Report

The Report is the first sustainability report compiled by Chang Wah Electromaterials Inc. (hereinafter, the Company or CWE) and is available on the corporate website. CWE would continue to prepare sustainability reports on a yearly basis for disclosures of its operational results, including financial performance, to all stakeholders on a regular basis and to realize the corporate vision of sustainable operations with actions. The Report was released in September 2023, and the next report is scheduled to be released in June 2024.

This report has been prepared in reference to the GRI Standards issued by the Global Reporting Initiatives (GRI) and in accordance with the “Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies” of the Taiwan Stock Exchange Corporation (TWSE).

Reporting Boundary and Scope

The reporting boundary covers Chang Wah Electromaterials Inc. (CWE or the Company) and its subsidiaries. As for the scope of the reporting data, financial information come from all entities within the consolidated financial statements. Financial data in this report have been prepared in accordance with the International Financial Reporting Standards (IFRSs) endorsed by the Financial Supervisory Commission (FSC) and audited by Deloitte & Touche. Unless otherwise stated, figures are expressed in New Taiwan dollars. Disclosure boundary of environmental data is limited to production and manufacturing plants (subsidiaries).

Reporting Period

This report is prepared for the period from January 1, 2022 to December 31, 2022.

Feedback Contacts

Please contact us if you have any suggestions regarding the Report. For more information on our sustainability efforts, please access our corporate website.

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Letter from the Chairman

Success is No Accident but Hard Work and Dedication

From its establishment in 1989 as a distributor of professional packaging materials and equipment, CWE has been dedicated to the semiconductor packaging industry for more than 30 years. By playing the role of being the bridge between customers and suppliers, CWE and its partner, Sumitomo Metal Mining have jointly invested in the production of tape-COF for LCD driver ICs. In the quest for an additional outlet for production, the Company invests in SH Electronics Taiwan and Chang Wah Technology for the manufacturing of LED lead frames and packaging materials. CWE Group's business expansion from a distribution channel to manufacturing as well as from packaging materials to LCD, LED and consumer electronics is not a one-step, immediate process, but rather a result of many crucial factors.

Full utilization of effective resources

CWE, started as a distribution channel of packaging materials. Over the years, it has not only first-class IC packaging engineers, but also the support of quality partners, including excellent packaging materials from Sumitomo Bakelite, matured etching and electroplating techniques from Sumiko, and sophisticated packaging equipment, mold design, and manufacturing capabilities from Apic Yamada. CWE builds in-house core technology platform with its expertise in the raw materials and production process of lead frames, allowing subsidiary Chang Wah Technology to enter the LED EMC lead frame market at an almost perfect moment and be fortunate enough to capture more than half of the market share of high-demand EMC lead frames at that time.

Support from Taiwan capital market

CWE Group also benefits from support of Taiwan capital market for small businesses, enabling CWE to be listed on the Taipei Exchange in 2003 and on the Taiwan Stock Exchange in 2007. Our subsidiary Chang Wah Technology was successfully listed on the Taipei Exchange in 2016 after a short span of two years, gaining access and capabilities to direct financing and reserving strength for subsequent operational developments.

Full utilization of communication channels

Unsatisfactory performance of the semiconductor industry in Japan brought Sumitomo Metal Mining to exit the lead frame market. Long-term cooperation between CWE and Sumitomo Metal Mining allows both parties to quickly reach an agreement for CWE and subsidiary Chang Wah Technology to acquire five of Sumitomo Metal Mining's lead frame factories both in and outside Japan in a seamless manner. With IDM customers taken over by subsidiary Chang Wah Technology and CWE's existing customers, the Group has a complete customer outlet, and brings brand-new applications and more competitive products to the market of metal lead frame packaging.

Demonstration of self-innovation

Our subsidiary Chang Wah Technology is capable of not only designing and modifying molds and machines, but also developing unique manufacturing processes, including precise half-etching technology for QFN which improves production efficiency by more than 33%, adoption of photomask plating to replace 80% of the former photoresist plating for QFNs, and in-house pre-mold process to enhance added value. By reengineering the lead frame manufacturing process, we have the ability to set industry standards and meet customer needs with the highest manufacturing efficiency in the industry. Despite multiple impacts of the pandemic on global economy over the past three years, CWE Group has demonstrated resilience with record-high

business performances from CWE and Chang Wah Technology. As the pandemic gradually subsides, we look forward to record-setting performance from members of the CWE Group in the future.

Promotion of sustainable development

Enterprises are about creating economic value, generating profits for shareholders and investors and striving to maintain the value bases jointly forged by customers, shareholders and employees. Furthermore, they shall fulfill their social responsibilities by cherishing the communities, creating social values, and acknowledging the fact that wealth creation is equally important as social caring. These are the cornerstones of corporate sustainability. Consequently, CWE adheres to the spirit of “integrity,” “passion,” and “comprehensive service” and adopts measures to fulfill the role of a global corporate citizen in areas of environmental protection, social responsibility and corporate governance. In terms of environmental protection, CWE complies with international environmental laws and regulations on hazardous or banned substances, sells products conforming to green supply chain requirements of customers, and continues to promote waste reduction, energy conservation and resource reuse in order to reduce environmental pollution and protect the planet. Regarding social responsibility, CWE Group establishes a fair work environment, prohibits all forms of discrimination, and exerts influence to fulfill its corporate social responsibilities. Our participation in public welfare centers around the three themes of sports and health, charity, and humanity and art. As for corporate governance, CWE Group adheres to the principle of business integrity and prohibits the acceptance of improper interests, including bribery, corruption, and abuse of power. We strengthen integrity education and conduct audits to prevent malpractices internally; comply with relevant anti-corruption laws and regulations; and maintain information transparency by regularly disclosing information of our financial reports, business policies, organizational structure, product research and development, sales performance along with other

business activities to the public. We take the responsibility for the accuracy of information released in order to guarantee data transparency and reliability. CWE Group drives sustainable development through innovative thinking, sound management, and continued efforts, thereby enhancing its core competitiveness, striding toward the goal of sustainable operations and achieving mutual benefit and prosperity for the community and stakeholders.



Canon Huang, Chairman of the CWE Group

Governance and Sustainable Management

1.1 Company Profile

Ticker number	8070	Company name	Chang Wah Electromaterials Inc.	Industry	Electronic distribution industry
Address	6F, No.16, East 7th Street, Nanzi Dist., Kaohsiung City 811, Taiwan (R.O.C.)				
Chairman	Canon Huang	President	Thomas Huang		
Main businesses	Sales of semiconductor packaging materials Trading and installation of packaging machinery and equipment. Provision of technical support for packaging				
Date of incorporation	1989/5/13	Business ID number	23307811		
Paid-in capital	689,419,426	Par value per common share	NT\$1		
Number of employees	80 employees (as of 2022/12/31)	Total Group employees	2,282 employees (as of 2022/12/31)		

Founded on May 13, 1989, CWE is a distributor of IC packaging materials and equipment as well as manufactures and sells display backlight module materials. The Company was listed on the Taipei Exchange (8070TW) in 2003 and officially listed on the Taiwan Stock Exchange (8070TW) in 2007. CWE has introduced packaging materials and equipment of Sumitomo Bakelite, Sumitomo Metal Mining Group and a number of internationally renowned manufacturers in a timely and precise manner with its professional foresight and astute market insights, satisfying diverse needs of domestic packaging companies. Through years of dedication and efforts, we have gradually expanded our product lines. Our focuses are now on semiconductor packaging materials including EME, lead frames and substrates for packaging.

CWE takes active steps to move from being a distribution channel to a manufacturer. By investing in subsidiaries, the Company branches out into fields of LED lead frame, tape-COF, electrical contact materials, etc. to enhance its market competitiveness. At present, our key subsidiaries include Chang Wah Technology Co., Ltd. (CWTC), a metal lead frame manufacturer, and JMC Electronics Co., Ltd., a tape-COF manufacturer; and our operations centered around Taiwan's major ICT industries which span across semiconductor and display. As a whole, CWE is much more than a professional material distributor. It has transformed into a professional material manufacturer with manufacturing expertise from subsidiaries.

The subsidiary CWTC was listed on the Taipei Exchange (6548TW) in 2016. It purchased shares of SH Asia Pacific Pte. Ltd. (SHAP), an investee of the Japanese company SH Materials Co., Ltd. (S.H.M), in 2017, marking its official start to the upstream metal lead frame industry to become a world-leading IC substrate manufacturer. The role of the subsidiary CWTC in the IC and LED supply chain is to provide materials for packaging following wafer production. Wafers need to be packaged before they can be used in subsequent module production and be installed in/applied to various electronic consumer products. Same as other IC and LED packaging companies, we are material suppliers of

the back-end process in the early stages of the entire industry chain. CWTC is one of the top five lead frame suppliers in the world.

[Business Philosophy](#)

We are continuing to strength our product agency capabilities under a philosophy of “integrity, passion, and comprehensive service.” We are securing agency rights to even more international brands. We hope to satisfy customers' one-stop shopping needs with a full product line, and we seek to actively understand our customers' needs and ongoing market trends. We are eager to forge high added value partnerships, and enhance the competitive advantage and growth of our customers and vendors.

◆ **Integrity**

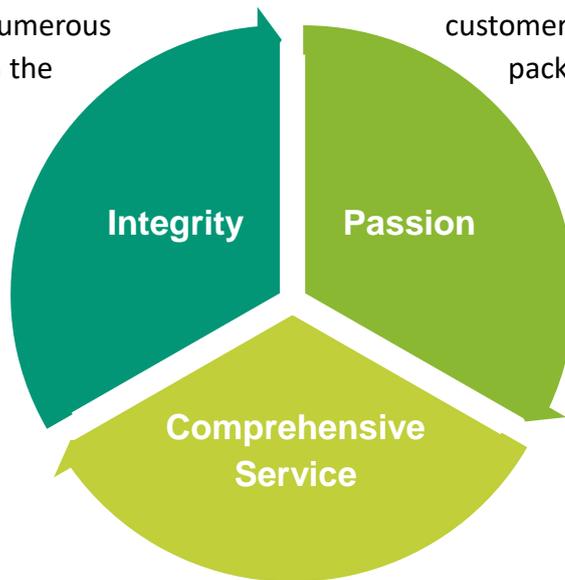
Integrity is the foundation of sustainable operations.

◆ **Passion**

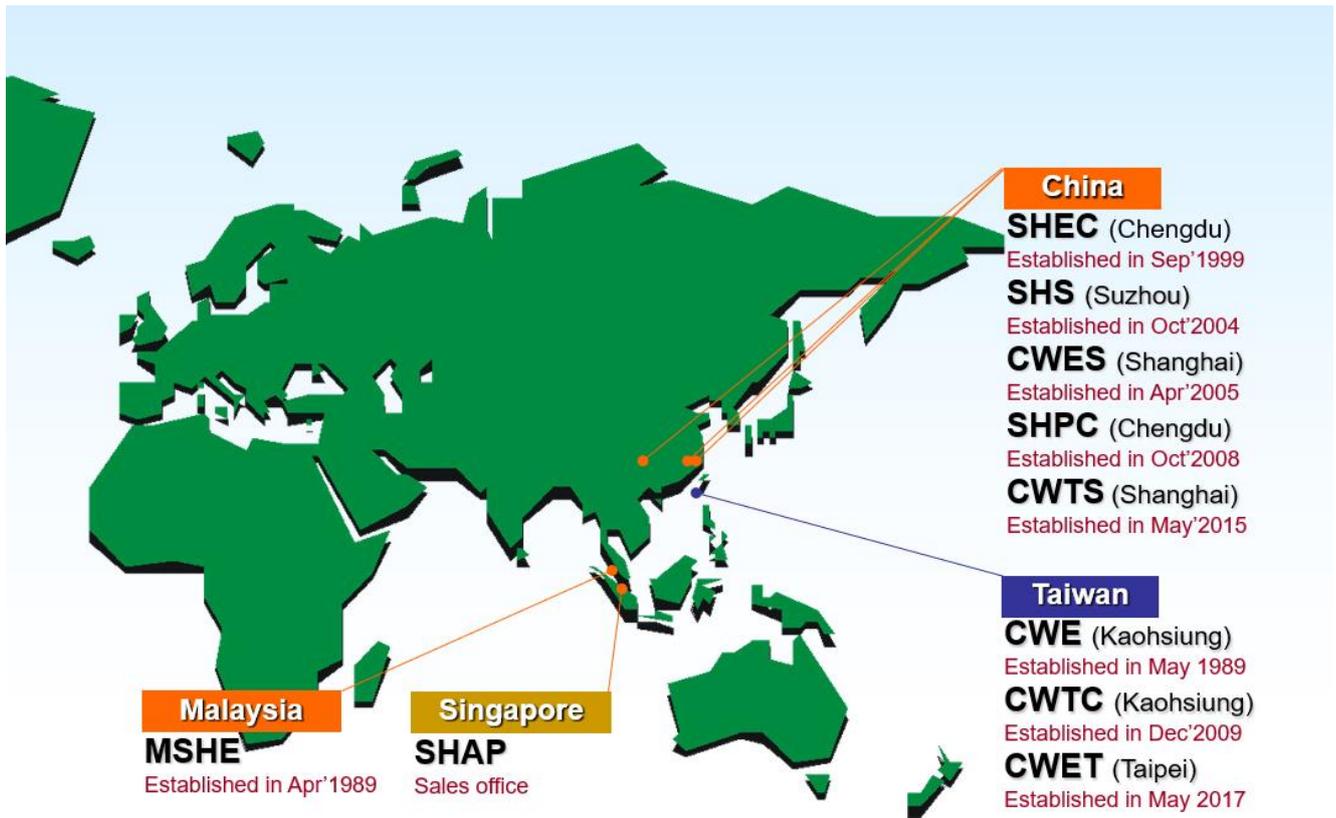
Having a team of elites that are impressively passionate and competent, we are able to provide customers with products and services of high quality and efficiency in the shortest possible time ahead of our peers and strive to present every small detail.

◆ **Comprehensive Service**

With years of professional and practical experience in the packaging industry from our executives and technical support from original manufacturers, we are able to solve various product issues and provide total solutions for customers, gaining trust and recognition from numerous customers, and setting the best corporate model in the packaging industry.



Operation Sites



<p>Chang Wah Electromaterials Inc.</p>	<ul style="list-style-type: none"> •Location : 6F, No.16, East 7th Street, Nanzi Dist., Kaohsiung City 811,Taiwan (R.O.C.) •Main Business : Sales of semiconductor packaging materials and equipment
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<p>Taipei Branch of CWE</p>	<ul style="list-style-type: none"> •Location : 7F., No. 35, Ln. 221, Gangqian Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.) •Main Business : Sales of semiconductor packaging materials and equipment
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<p>Chang Wah Technology Co., Ltd.</p>	<ul style="list-style-type: none"> •Location : No. 24, Kaifa Rd., Nanzi Dist., Kaohsiung City 811, Taiwan (R.O.C.) •Main Business : Manufacturing of lead frames
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<p>Japan branch of CWTC</p>	<ul style="list-style-type: none"> •Location : 8F, 1-10-2, Kanda-Sudacho, Chiyoda-ku, Tokyo, Japan •Main Business : Trading of lead frames
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SH Electronics Suzhou Co.,
Ltd.

- Location : No. 123, Longtan Road, Suzhou Industrial Park, Jiangsu Province, China
- Main Business : Manufacturing of lead frames

SH Electronics Chengdu Co.,
Ltd.

- Location : No. 7, Xin Yuan South 2nd Road, Singapore Industrial Park, Chengdu High-Tech Industrial Development Zone, Sichuan Province, China
- Main Business : Manufacturing of lead frames

SH Precision Chengdu Co.,
Ltd.

- Location : Plant No.6, Chengdu Export Processing Zone (West Zone), No.8, Kexin Road, West Park, Chengdu Hi-tech Zone, Sichuan Province, China
- Main Business : Manufacturing of lead frames

Shanghai Chang Wah
Electromaterials Inc.

- Location : Rm. 4, 20F., Mega Plaza, No. 1027, Changning Road, Shanghai, China
- Main Business : Trading of IC packaging materials

Chang Wah Energy
Technology Co., Ltd.

- Location : 7F, No. 35, Lane 221, Gangqien Road, Neihu District, Taipei City, Taiwan
- Main Business : Generation of solar energy

CWTC (Shanghai) Inc.

- Location : Rm. E01, 2F., No. 207, Fute North Road, Pilot Free Trade Zone, Shanghai, China
- Main Business : Trading of lead frames

SH Asia Pacific Pte. Ltd.

- Location : 10 Eunos Road 8 #05-04/05 Singapore Post Centre Singapore 408600
- Main Business : Trading of lead frames

Malaysian SH Electronics
Sdn. Bhd.

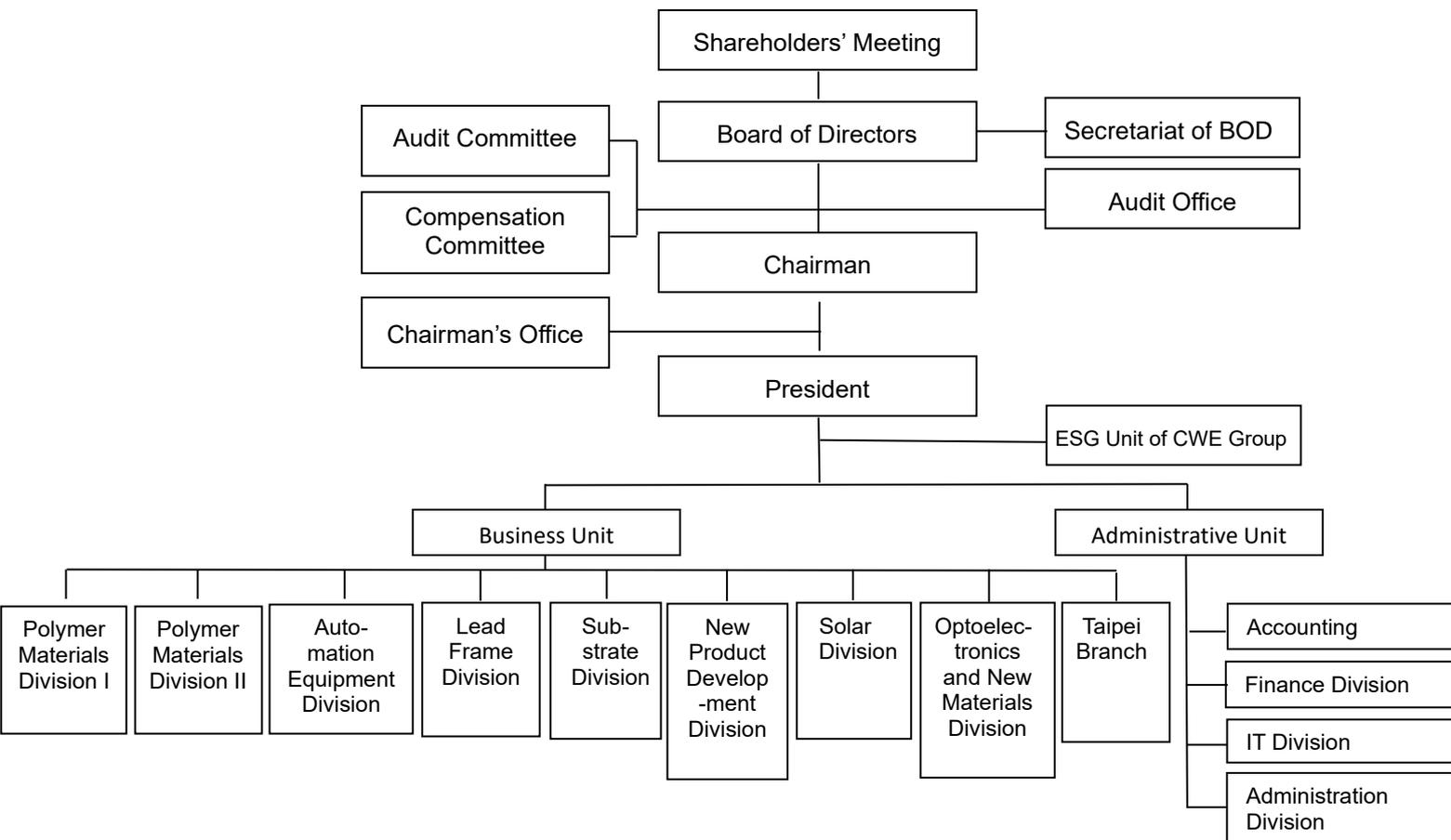
- Location : Lots 5,7&9, Jalan Ragum 15/17, 40200 Shah Alam, Selangor Darul Ehsan, Malaysia
- Main Business : Manufacturing of lead frames

1.2 Corporate Governance

With the goal of protecting shareholder rights, CWE adopts measures for internal and external supervision as well as a system of checks and balances. We not only maintain a sound corporate operation and strive for the optimization of corporate value, but also secure the rights of all stakeholders for the sustainable operation of the Company.

We examine the status of our governance practices and their effectiveness based on the corporate governance evaluation promoted by the FSC and our “Code of Practice for Corporate Governance” approved by the Board of Directors in 2022. Also, through the process of self-assessment, the management places greater importance on the continuous improvement of our corporate governance system, aiming to further build and enhance the governance quality.

Organizational Structure



Department		Major Functions
Secretariat of BOD		<ol style="list-style-type: none"> 1. To handle the convention and agenda of the audit committee meetings and compensation committee meetings, and all relevant matter. 2. To handle matters related to the meetings of the board of directors and shareholders' meetings in accordance with the law, and to assist the Company in complying with the relevant laws and regulations of the board of directors and shareholders' meetings. 3. To register and change the registration of the company. 4. To prepare minutes of the board of directors' and shareholders' meetings. 5. To provide directors with information necessary to carry out their business and to assist directors in complying with the latest regulatory developments related to the operation of the company. 6. Matters related to investor relations. 7. Other matters as provided for in the Articles of Incorporation or contract.
Audit Office		<ol style="list-style-type: none"> 1. To assist with the planning and formulation of internal control system. 2. To carry out internal audits. 3. To plan and promote self-assessment of internal control system. 4. To execute the supervision of Group's subsidiaries.
Chairman's Office		<ol style="list-style-type: none"> 1. To develop, plan and execute the mid and long-term operation strategies of the Company. 2. To guide every division in the execution of operational strategies in order to achieve targets set in the annual budget. 3. To plan the policies for major investments and explore new business. 4. To execute the management of Group's subsidiaries.
President		<ol style="list-style-type: none"> 1. To organize and execute the short and mid-term operational plans of business divisions. 2. To achieve the annual budget of business divisions. 3. To manage and supervise the performance of business and operation supporting divisions. 4. To draw up key rules and procedures.
ESG Unit of CWE Group		Planning and promotion of the Group's sustainable development objectives with a focus on sustainable risk management and opportunities.
Business Unit		<ol style="list-style-type: none"> 1. To plan and execute annual operational policies and business strategies. 2. To develop new markets, sell products and provide various services and consultation to customers. 3. To organize, manage and utilize business resources.
Administrative Unit	Administration Division	<ol style="list-style-type: none"> 1. Human resource planning and execution. 2. Various educational training sessions. 3. Legal consultation and management of legal affairs. 4. Environmental management and general affairs.
	IT Division	<ol style="list-style-type: none"> 1. To establish, introduce and maintain the software and hardware of IT system and develop the application for intelligence technology. 2. Server room management and information security protection.
	Finance Division	Short, mid and long-term financial planning and execution.
	Accounting Division	<ol style="list-style-type: none"> 1. To plan and execute the procedures for the preparation of the Group's consolidated financial statements. 2. To plan and execute tax-related procedures.

Board of Directors

The Board of Directors is the highest governance body of CWE and is accountable to the shareholders' meeting. The Board as a whole possesses capabilities of business judgement, accounting and financial analysis, and business management. It exercises its powers with a high degree of self-discipline and prudence, and conducts the Company's business in accordance with the Board resolutions, except for matters that shall be resolved by the shareholders' meeting in accordance with the law or the Articles of Incorporation. It is also responsible for formulating the Company's corporate social responsibility and sustainable development strategies.

The term of the current Board is from June 17, 2022 to June 16, 2025. The professional qualifications of the Directors and the independence of the Independent Directors are as follows:

Condition	Professional Qualification and Experience	Independence Criteria	Number of Other Public Companies in Which the Individual is Concurrently Serving as an Independent Director
Name			
Canon, Huang	<p>Canon, Huang (64-year-old) graduated from the Department of Mechanical Engineering in Chung Yuan Christian University. Once served in managerial position at several multinational corporations such as ASE Electronics Inc., Orient Semiconductor Electronics Ltd., and Wah Lee Industrial Corp., he has been involved in the operation and strategic management of semiconductor industry for more than 30 years. Besides being the Chairman of CWE Group, he is a director in companies within the electronic technology industry chain with expertise in governance. He has vast experience in marketing, industry know-how, leadership, decision-making and business management.</p> <p>He is not a person of any conditions defined in Article 30 of the Company Act.</p>	<ol style="list-style-type: none"> 1. He is an employee of the Company and the chairman as well as a director of affiliates. 2. He is the representative of corporate director, Yuan Yao Energy Technology Co., Ltd., who holds over 5% of the Company's shares. 3. He satisfies the other independence criteria after verified against independence elements set out in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" promulgated by the Financial Supervisory Commission. 	None
Chang, Tsuen-Hsien	<p>Chang, Tsuen-Hsien (58-year-old) graduated from the Departments of Electrical Engineering and Biomedical Engineering in University of Southern California, USA. Once served as the special assistant to chairman and CEO of Wah Lee Industrial Corp., he is now the president of the company as well as the chairman and director in several subsidiaries of the Wah Lee Group. He has vast experience in corporate governance, marketing, industry know-how, leadership, decision-making and business management.</p> <p>He is not a person of any conditions defined in Article 30 of the Company Act.</p>	<ol style="list-style-type: none"> 1. He is the representative of corporate director, Wah Lee Industrial Corp., who holds over 5% of the Company's shares. 2. He is a director of a specific company (holding over 20% of the Company's shares) having business relationship with the Company. 3. He satisfies the other independence criteria after verified against independence elements set out in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" promulgated by the Financial Supervisory Commission. 	None
Huang, Shiou-Chuan	<p>Huang, Shiou-Chuan (72-year-old) graduated from the Department of Electrical Engineering in Tatung University. Once served as vice president or Vice Chairman at several multinational corporations such as HP Taiwan Information Technology Ltd., Hon Hai Group, and Innolux Corporation, he has been involved in the scale growth of numerous companies. He is now the chairman of Vizionfocus Inc.,. He has vast experience in corporate governance, marketing, industry know-how, leadership, decision-making and business management.</p> <p>He is not a person of any conditions defined in Article 30 of the Company Act.</p>	<ol style="list-style-type: none"> 1. He is a director of affiliates. 2. He satisfies the other independence criteria after verified against independence elements set out in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" promulgated by the Financial Supervisory Commission. 	None
Hung, Chuen-Sing	<p>Hung, Chuen-Sing (58-year-old) graduated from Hong Kong Polytechnic University. Once served as president of Possehl Electronics Hong Kong Ltd., Sumiko Precision Mold Taiwan Co., Ltd. and Sumiko Electronics Taiwan Co., Ltd., he is now the president of Chang Wah Technology Co., Ltd. and a director in several subsidiaries of the CWE Group. He has vast experience in corporate governance, marketing, industry know-how, leadership, decision-making and business management to give opinions concerning corporate governance and operation management to the Board of Directors of the Company.</p> <p>He is not a person of any conditions defined in Article 30 of the Company Act.</p>	<ol style="list-style-type: none"> 1. He is an employee of the affiliates as well as the chairman, director or president of the affiliates. 2. He satisfies the other independence criteria after verified against independence elements set out in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" promulgated by the Financial Supervisory Commission. 	None

Condition	Professional Qualification and Experience	Independence Criteria	Number of Other Public Companies in Which the Individual is Concurrently Serving as an Independent Director
Name			
Kong, Chi-Chuan	<p>Kong, Chi-Chuan (63-year-old) graduated from the Department of Senior Petrochemical Division, Ko Ying Senior Vocational School of Commerce and Industry. Once served as manager of Jiao Chang Customs Brokerage Limited, he is now the chairman of the company as well as a director in Tsing Ho Real Estate Co., Ltd. He has more than 35 years of experience in commercial dealings and is familiar with the technology advancement of semiconductor industry chain. His expertise lies in operation management, insights into industry development, marketing, leadership and decision-making and can therefore enhance the corporate governance quality of the Board as well as supervisory function of the Audit Committee. He is not a person of any conditions defined in Article 30 of the Company Act.</p> <p>He is a member of the Compensation Committee and the Audit Committee.</p>	<p>He satisfies the qualification requirements set out in the “Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies” promulgated by the Financial Supervisory Commission and Article 14-2 of the Securities and Exchange Act.</p>	None
Yen, Shu-Yang	<p>Yen, Shu-Yang (46-year-old) graduated from MBA/LLM, American University, Bachelor and Master of Laws, Fu Jen Catholic University. Once served as Chien Yeh Law Offices Junior Partner of Kaohsiung Office and Guo Yu Shan Law Firm Attorney, she is now the Managing Attorney of Asian Pacific Int'l Patent & Trademark Office as well as a Corporate Director representative in EFUN Technology Co., Ltd. Having been involved in law-related field for more than 15 years, her expertise lies in legal affairs, industry know-how, leadership and decision-making. She can provide legal opinions on business management and can therefore enhance the corporate governance quality of the Board as well as supervisory function of the Audit Committee. She is not a person of any conditions defined in Article 30 of the Company Act.</p> <p>She is a member of the Compensation Committee and the Audit Committee.</p>	<p>She satisfies the qualification requirements set out in the “Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies” promulgated by the Financial Supervisory Commission and Article 14-2 of the Securities and Exchange Act.</p>	None
Chen, Chih - Cheng	<p>Chen, Chih -Cheng (48-year-old) graduated from the Bachelor of Accounting, Feng Chia University. Once served as Senior Assistant President of Deloitte & Touche, he is now a CPA of Zhuo Cheng Accounting Firm. Having been involved in accounting and tax fields for more than 10 years, his expertise lies in accounting/financial analysis, industry know-how, leadership and decision-making. He can provide opinions concerning corporate governance on business management and can therefore enhance the corporate governance quality of the Board as well as supervisory function of the Audit Committee. He is not a person of any conditions defined in Article 30 of the Company Act.</p> <p>He is a member of the Compensation Committee and the Audit Committee.</p>	<p>He satisfies the qualification requirements set out in the “Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies” promulgated by the Financial Supervisory Commission and Article 14-2 of the Securities and Exchange Act.</p>	None

A total of 8 (A) meetings of the Board of Directors were held in 2022. The attendance of director were as follows:

Name	Attendance in Person (B)	By Proxy	Attendance Rate (%) (B / A) (Note1)	Remarks
Yuan Yao Energy Technology Co., Ltd. Rep.: Canon, Huang	8	0	100%	Reelected in the election on June 17, 2022.
Yuan Yao Energy Technology Co., Ltd. Rep.: Chou, Kang-Chi	2	1	67%	Resigned after the election on June 17, 2022.
Wah Lee Industrial Corp. Rep.: Chang, Tsuen-Hsien	8	0	100%	Reelected in the election on June 17, 2022.
Wah Lee Industrial Corp. Rep.: Chang, Jui-Ting	2	1	67%	Resigned after the election on June 17, 2022.
Huang, Shiou-Chuan	8	0	100%	Reelected in the election on June 17, 2022.
Hung, Chuen-Sing	7	1	88%	Reelected in the election on June 17, 2022.
Kong, Chi-Chuan	8	0	100%	Reelected in the election on June 17, 2022.
Su, Erh-Lang	3	0	100%	Resigned after the election on June 17, 2022.
Yen, Shu-Yang	5	0	100%	Newly elected in the election on June 17, 2022.
Hsin, Chun-Hao	3	0	100%	Resigned after the election on June 17, 2022.
Chen, Chih -Cheng	5	0	100%	Newly elected in the election on June 17, 2022.

Note : Directors with conflict of interest had recused themselves from the discussion and voting of issues.

Board Diversity

Board diversity policy

The Board diversity policy is set out in Chapter III “Enhancement of Board Function” of the Company’s “Code of Practice for Corporate Governance”.

The Board shall direct corporate strategies, oversee the management and be accountable to the Company and the shareholders’ meetings. Procedures and arrangements of the governance system shall ensure the Board would exercise its powers pursuant to applicable laws and regulations, the Articles of Incorporation or resolutions of the shareholders’ meeting.

The Company’s Board shall have seven to nine Directors based on the business scale, shareholdings of major shareholders and operations.

Board composition shall reflect diversity. Besides limiting the number of Directors who are also managers of the Company to less than one-third of the Board seats, appropriate diversity guidelines are formulated based on operations, business types and developments. These guidelines shall include but not limited to standards of the following two aspects:

1. Fundamental conditions and values: Gender, age, nationality, culture, etc. and female Directors are advised to account for one-third of all Directors.
2. Professional knowledge and skills: Professional background (e.g., law, accounting, industry, finance, marketing or technology), professional skills, industry experience, etc.

Board members shall generally possess the knowledge, skills and competence required to carry out

their duties. To achieve the ideal goal of governance, the Board as a whole shall possess the following capabilities:

1. Business judgement
2. Accounting and financial analysis
3. Business management
4. Crisis management
5. Industry knowledge
6. Global market perspective
7. Leadership
8. Decision-making

Specific management targets of Board diversity

Board diversity facilitates Board effectiveness. The Company's nomination and selection of Board members comply with the Articles of Incorporation and adopt the candidate nomination system, where the Secretariat of BOD would examine the candidates' qualification before submitting the list of candidates to the Board for resolution to ensure the diversity and independence of Board members.

The Company's board of directors shall be accountable to the shareholders' meeting. The procedures and arrangements of the corporate governance system shall ensure that the board exercises its power pursuant to the laws and regulations, the Articles of Incorporation or the resolutions of the shareholders' meetings. Board members shall possess appropriate professionalism and competence. The objectives of diversity include to have independent directors account for at least one-third of the board, the number of directors who are also managerial officers of the Company shall be less than one-third of the board seats, independent directors shall not serve for more than three consecutive terms, the expertise of board members shall cover fields of business management, accounting and financial analysis and law, and to have at least one female director.

Implementation of Board diversity

The Board at present is comprised of seven directors. Targets and completion status of Board diversity are as follows:

Management Target	Completion Status	Description
Have independent directors account for at least one-third of the Board	Completed	The board has seven directors at present, including three independent directors, with different professional backgrounds or expertise.
Directors who are also managerial officers of the Company shall not account for more than one-third of the Board	Completed	There is one director who is also a managerial officer of the Company.
Independent directors shall not serve for more than three terms	Completed	The terms of the Company's independent directors range between 0.5 years and 3.5 years.
Diverse professional knowledge and skills	Completed	Board members' professional backgrounds and skills in corporate governance, marketing, industry know-how, leadership, decision-making, business management, accounting and financial analysis and legal affairs can effectively facilitate the Company with the implementation of business and future development strategies.
Have at least one female director	Completed	CWE has always been concerned about gender equality in the board. We now have one female director among the seven directors, representing 14.29% of the board.

The management objectives of board diversity have all been achieved.

Diverse backgrounds of board members are as follows :

Name	Basics				
	Nationality	Gender	Age	CWE Employee	Seniority of Independent Director
Chairman Canon, Huang	ROC	Male	64	V	
Director Chang, Tsuen-Hsien	ROC	Male	58		
Director Hung, Chuen-Sing	HK	Male	58		
Director Huang, Shiou-Chuan	ROC	Male	72		
Independent Director Kong, Chi-Chuan	ROC	Male	63		4
Independent Director Yen, Shu-Yang	ROC	Female	46		1
Independent Director Chen, Chih-Cheng	ROC	Male	48		1

Name	Professional Knowledge and Skills							
	Corporate Governance	Marketing	Industry Knowledge	Leadership	Policy-making ability	Operation Management	Legal Affairs	Accounting and financial analysis skills
Chairman Canon, Huang	V	V	V	V	V	V		
Director Chang, Tsuen-Hsien	V	V	V	V	V	V		
Director Hung, Chuen-Sing	V	V	V	V	V	V		
Director Huang, Shiou-Chuan	V	V	V	V	V	V		
Independent Director Kong, Chi-Chuan	V	V	V	V	V	V		
Independent Director Yen, Shu-Yang	V		V	V	V	V	V	
Independent Director Chen, Chih-Cheng	V		V	V	V	V		V

Continuing Education of Directors

Year	Number of Directors	Duration	Average Hours
2022	7	54	7.71
2021	9	63	7.00

Director Performance and Compensation

We have established the Board performance evaluation system. We measure the performance of the Board and individual Directors in directing and overseeing the Company's operation using non-financial indicators with sustainability elements in order to enhance the Board's overall effectiveness. Directors completed the 2022 Board performance evaluation in March 2023. The evaluation focused on "level of participation in corporate operations", "enhancement on the quality of Board decisions", "composition and structure of the Board", "election and continuing education of Directors" and "internal control". Also, We provide specific recommendations to enhance the Board

functions and operation efficiency. The evaluation results were submitted to members of the Compensation Committee in 2023 as references for Director compensation. Compensation policy of the Company's highest governance body, i.e., the Board, is disclosed in the annual report every year. Please refer to the annual report for details.

Results of the Board performance evaluation

Year	Internal Evaluation
2022	The overall score was 98.87/100, indicating an excellent operation and receiving positive reviews.
2021	The overall score was 97.97/100, indicating an excellent operation and receiving positive reviews.

Remuneration is paid based the Company's "Standards, Policy and Structure of Director Remuneration". It is reviewed regularly by the Compensation Committee and distributed upon approvals from the Board. Remuneration to directors comprises of base compensation, compensation to directors and allowances. Base compensation is a fixed amount distributed from a budget of NT\$8 million every year. Whether the director is a member of a functional committee and his/her involvement and contribution to the operation are taken into account when the Board determines the compensation amount. Compensation to directors is paid pursuant to the Articles of Incorporation. When the Company's net income for the year exceeds NT\$800 million, 2% of the excess from income between NT\$800 million and NT\$1 billion shall be distributed as remuneration to directors. When the annual income exceeds NT\$1 billion, 4% of the excess shall be distributed as remuneration to directors. Allowances include attendance allowance and others. Remuneration policy is established with consideration to the level of participation and contribution of individual director to the Company (results of performance evaluation on the Board and individual director), industry average (companies in the electronics distribution industry or one with similar levels of paid-in capital, revenue, or profits) as well as business performance indicators.

[Compensation policy of the President](#)

As for the senior executives, compensation is paid based the Company's "Standards, Policy and Structure of Manager Compensation". It is reviewed regularly by the Compensation Committee and distributed upon approvals from the Board. Compensation to managers comprises of salary, allowance, bonus, benefit, employee compensation, severance pay or pension, all in accordance with the law. Salary and allowance are determined based on managers' education, work experience, professional competence and positions within he Company as well as the Company's personnel management rules. Bonus is linked to performance evaluation and the Company's business performance. Performance evaluation of managers (e.g., the President) include financial targets (e.g., revenue of departments, profit before tax, earnings per share, budget achievement and growth) and non-financial targets (e.g., business management and risk control capabilities). Bonus is calculated based on the results of performance evaluation. Rules for benefits are formulated to meet the needs of employees and retain talents for the Company. Employee compensation is distributed pursuant to the Articles of Incorporation, i.e., when the Company makes profits for a year, compensation to employees shall be no less than 1% and no higher than 12% of the profits. Severance pay or pension conform to labor laws and regulations. Compensation system is constantly reviewed to reflect actual business performance and applicable laws and

regulations.

In 2022, the ratio of the President's compensation to the median salaries of all other employees was 5 to 1 and the ratio of changes in annual compensation was zero.

Audit Committee

The Audit Committee is responsible for the fair presentation of the Company's financial statements, the appointment (discharge), independence and performance of the Company's CPAs, the effective implementation of internal controls, regulatory compliance, and controls over existing or potential risks of the Company. Its main duties are listed as follows:

1. To formulate or amend internal control system pursuant to Article 14-1 of the Securities and Exchange Act.
2. To assess the effectiveness of the internal control system.
3. To formulate or amend procedures for significant financial or business activities pursuant to Article 36-1 of the Securities and Exchange Act; for example, the acquisition or disposal of assets, derivatives transactions, lending funds to other parties, and provision of endorsements or guarantees to other parties.
4. Matters involving Directors' personal interests.
5. Material asset or derivative instrument transactions.
6. Significant loans to others or provision of endorsement or guarantees.
7. Offering, issuance, or private placement of equity-type marketable securities.
8. Appointment and discharge of CPAs or their compensation.
9. Appointment or discharge of a financial, accounting, or internal audit officer.
10. Annual and semi-annual financial reports.
11. Other material matters governed by the Company or the competent authorities.

Operation of the Audit Committee

The Audit Committee comprises three members. The term of the existing Committee members is from June 17, 2022 to June 16, 2025. Member details of the fifth Audit Committee are as follows :

Name	Education	Work Experiences	Current Positions
Kong, Chi-Chuan	Senior Petrochemical Division, Ko Ying Senior Vocational School of Commerce and Industry	◆Jiao Chang Customs Brokerage Limited Manager	◆Jiao Chang Customs Brokerage Limited Chairman ◆Tsing Ho Real Estate Co., Ltd. Corporate Director Representative
Chen, Chih - Cheng	Bachelor of Accounting, Feng Chia University	◆Deloitte & Touche Senior Assistant President	◆Zhuo Cheng Accounting Firm CPA
Yen, Shu-Yang	MBA/LLM, American University Bachelor and Master of Laws, Fu Jen Catholic University	◆Chien Yeh Law Offices Junior Partner of Kaohsiung Office ◆ASUSTeK Computer Inc. Legal Affairs Center Senior Manager ◆Guo Yu Shan Law Firm Attorney	◆Asian Pacific Int'l Patent & Trademark Office Managing Attorney ◆EFUN Technology Co., Ltd. Corporate Director representative

Compensation Committee

The Compensation Committee shall faithfully perform the following duties with the due care of a good administrator and submit recommendations to the board for discussion.

- (1) Regularly review the organizational procedures of the Compensation Committee and propose amendments.
- (2) To establish and regularly review the policies, systems, standards and structures for annual and long-term performance goals and compensation for directors and managers of the Company.
- (3) The performance targets of the Company's directors and managers are evaluated periodically, and the content and amount of their individual remuneration are determined.

Operation of the Compensation Committee

The Compensation Committee comprises three members. The term of the existing Committee members is from June 29, 2022 to June 16, 2025. Member details of the fifth Compensation Committee are as follows :

Title	Criteria Name	Professional Qualifications	Independence Status	Number of Other Public Companies in Which the Individual is Concurrently Serving in the Compensation Committee
Independent Director / Convener	Kong, Chi-Chuan	Kong, Chi-Chuan (63-year-old) graduated from the Department of Senior Petrochemical Division, Ko Ying Senior Vocational School of Commerce and Industry. Once served as manager of Jiao Chang Customs Brokerage Limited, he is now the chairman of the company as well as a director in Tsing Ho Real Estate Co., Ltd. He has more than 35 years of experience in commercial dealings and is familiar with the technology advancement of semiconductor industry chain. His expertise lies in operation management, insights into industry development, marketing, leadership and decision-making and can therefore enhance the corporate governance quality of the Board as well as supervisory function of the Audit Committee. He is not a person of any conditions defined in Article 30 of the Company Act. He is a member of the Compensation Committee and the Audit Committee.	He satisfies the qualification requirements set out in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" promulgated by the Financial Supervisory Commission and Article 14-2 of the Securities and Exchange Act.	0
Independent Director	Chen, Chih-Cheng	Chen, Chih -Cheng (48-year-old) graduated from the Bachelor of Accounting, Feng Chia University. Once served as Senior Assistant President of Deloitte & Touche, he is now a CPA of Zhuo Cheng Accounting Firm. Having been involved in accounting and tax fields for more than 10 years, his expertise lies in accounting/financial analysis, industry know-how, leadership and decision-making. He can provide opinions concerning corporate governance on business management and can therefore enhance the corporate governance quality of the Board as well as supervisory function of the Audit Committee. He is not a person of any conditions defined in Article 30 of the Company Act. He is a member of the Compensation Committee and the Audit Committee.	He satisfies the qualification requirements set out in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" promulgated by the Financial Supervisory Commission and Article 14-2 of the Securities and Exchange Act.	0

Title	Criteria Name	Professional Qualifications	Independence Status	Number of Other Public Companies in Which the Individual is Concurrently Serving in the Compensation Committee
Independent Director	Yen, Shu-Yang	Yen, Shu-Yang (46-year-old) graduated from MBA/LLM, American University, Bachelor and Master of Laws, Fu Jen Catholic University. Once served as Chien Yeh Law Offices Junior Partner of Kaohsiung Office and Guo Yu Shan Law Firm Attorney, she is now the Managing Attorney of Asian Pacific Int'l Patent & Trademark Office as well as a Corporate Director representative in EFUN Technology Co., Ltd. Having been involved in law-related field for more than 15 years, her expertise lies in legal affairs, industry know-how, leadership and decision-making. She can provide legal opinions on business management and can therefore enhance the corporate governance quality of the Board as well as supervisory function of the Audit Committee. She is not a person of any conditions defined in Article 30 of the Company Act. She is a member of the Compensation Committee and the Audit Committee.	She satisfies the qualification requirements set out in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" promulgated by the Financial Supervisory Commission and Article 14-2 of the Securities and Exchange Act.	0

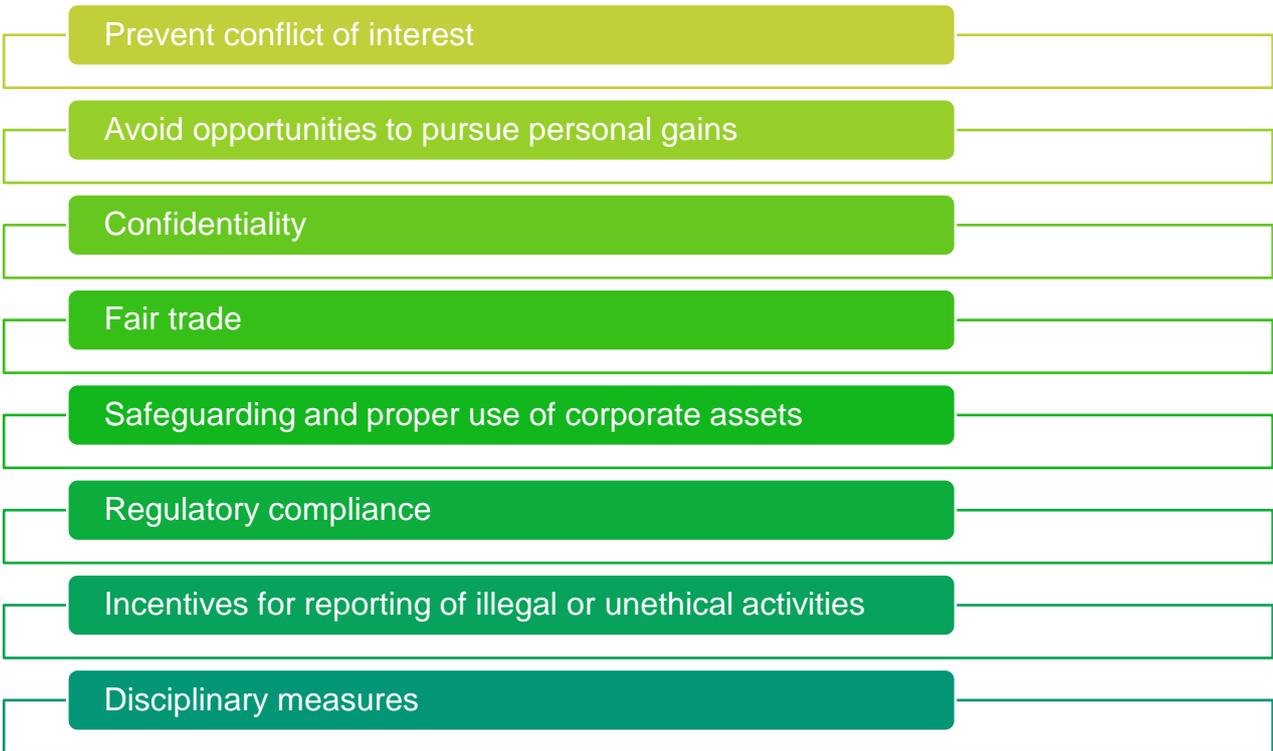
Code of Business Integrity

The Board has gradually adopted rules of business conducts and ethics, and established policies, guidelines, operating procedures, code of conducts and grievance systems to prevent unethical conducts. We are committed to conducting all business activities and actions with integrity, and has dedicated a chapter on employees' code of conduct in our working rules, which is applicable to all employees of the Company and its subsidiaries. The Group's ESG unit would assess our business integrity performance every year and report the results to the Board of Directors.

Relevant rules

Internal Rules	Date of Establishment (Amendment)
Code of Ethical Conduct for Directors and Managers	March 25, 2015
Code of Business Integrity	December 19, 2019
Procedures and Guidelines of Business Integrity	March 18, 2020
Sustainable Development Best Practice Principles	March 17, 2022
Procedures for Handling Material Internal Information	December 20, 2022
Code of Practice for Corporate Governance	March 16, 2023
Risk Management Policy	March 16, 2023

Compliance matters



Promotion of Sustainable Development

In terms of our framework for promoting sustainable developments, the President as the convener, and the Group’s ESG unit coordinates relevant matters and incorporates sustainable developments into the President’s KPIs. The Board oversees and gives guidance on environmental, social and governance issues of sustainable development, and receives reports on the effectiveness of promotion and corporate strategies as well as an annual update on the scope and content for the preparation of sustainability reports. The Board reviews strategy progress and urges the management team to make adjustments when necessary.

Sustainable development framework



Governance for promotion of sustainable development

- (1) President : Align with governance trends and comply with laws and regulations.
- (2) ESG Unit of CWE Group : Establish safety operation standards, inspect risk factors and collaborate on elimination, operate environmental protection equipment, manage sewage treatment, Maintain labor relations, employee health and safety, and arrange various education courses.

Risk assessment for promotion of sustainable development

Material Issue	Risk Evaluation Item	Risk Management Policy and Measure
Environmental	Environmental protection	Push for a reduction in process water consumption, build wastewater recycling facilities, and improve wastewater treatment efficiency with the target of increasing the recycling volume by 10% each year.
	Climate change	Commit to energy saving and carbon reduction, carry out GHG inventory annually and set the target of reducing carbon dioxide emissions every year.
Social	Information security management	Establish access controls, set up login authentication and password controls for the information system, install firewall and antivirus software to prevent hacker intrusion, establish a comprehensive backup mechanism, and carry out stress tests and drills on an annual basis.
Corporate governance	Regulatory compliance	Ensure regulatory compliance of all personnel and operations by establishing a governance framework and implementing internal control mechanisms.

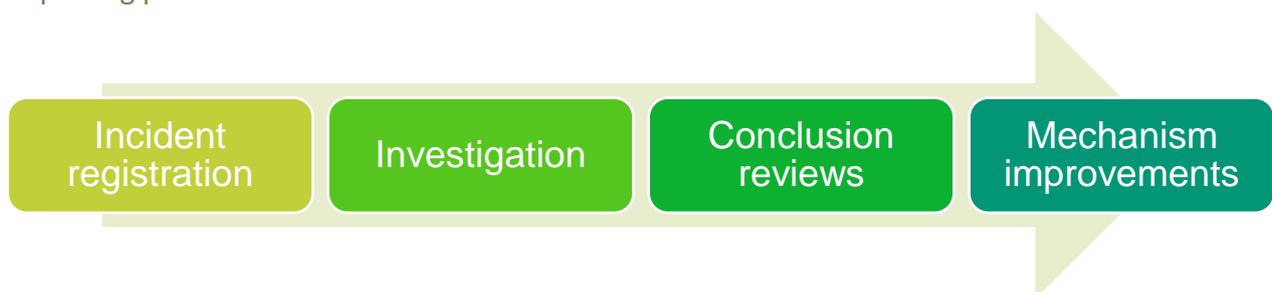
Details and number of communications between the Group’s ESG unit and the Board of Directors in 2022

Date	Description
March 17	Business integrity performance with reviews revealing there were no violations in the previous year
May 6	GHG inventory and schedule planning for verification, where implementation and progress are monitored on a quarterly basis
December 20	GHG inventory and progress report on verification planning

Prevention and Reporting

In order to guide our employees and stakeholders to understand the Company's CSR policy, we release relevant policies and practices on our corporate website and communicate the concept and our actions through various means such as education and promotion within the Company. In terms of human rights, we invite labor and management representatives for labor-management meetings. In 2022, four meetings were held and covered 100% of the total number of employees. Proposals related to operation and personnel were discussed during the meetings. Relevant units were invited to provide explanations on the proposals and give follow-up reports in the next meeting.

Reporting procedures



The Company has established a reporting system. To ensure its effectiveness, the auditing officer is appointed to handling reported incidents. A stakeholder mailbox (audit1@cwei.com.tw) is created as a channel for soliciting opinions and reporting of improper interests, and the whistleblower’s identity is strictly kept confidential. If the investigation reveals any material irregularities or the Company may suffer significant losses, a report would be prepared immediately to notify the Independent Directors in writing. As of the end of 2022, the Company has not received any reporting of incidents.

Internal Audit

The purpose of internal audit is to assist the Board of Directors and management in examining and reviewing deficiencies within the internal control system and measuring the effectiveness and efficiency of operations, the reliability of financial statements and the level of compliance with relevant laws and regulations. Also, it provides timely recommendations for improvement to ensure the operation of the internal control system would remain effective and to serve as a basis for reviewing and amending the internal control system so as to promote a sound operation of the Company.

Audit work is as follows:

1. The Audit Office draws up audit plans for the next year based on risk assessment results. The plans shall include items set out in Article 13 of the “Regulations Governing Establishment of Internal Control Systems by Public Companies”.
2. The Audit Office examines the execution of operations based on the planned audit items on a monthly basis and submits audit reports to the Directors and Audit Committee for review.
3. The Audit Office reports on details of internal audits at the quarterly Board meeting.
4. The Audit Office pushes the parent company and its subsidiaries to conduct self-inspections at least once a year. The evaluation form would be filled out by each unit and reviewed by the Audit Office before being submitted to the President and Chairman for review. The self-inspection results are used as the main basis for assessing the effectiveness of the entire internal control system and for issuing the statement of internal control system.

Regulatory Compliance

Department	Regulatory Compliance	External Assistance
Chairman’s Office	Report regularly on legal disputes and the progress of related litigations and cases, and take actions accordingly.	Plan for external legal advice and services.
Administration Dept.	Conduct internal training on relevant laws and regulations to strengthen employees’ awareness of legal compliance.	Coordinate with external consultants to plan and obtain certificates of relevant educational training.
Departments and Subsidiaries	Comply with local laws and regulations.	Work with local authorities to conduct regulatory training courses and obtain relevant certificates.
Audit Office	Implement internal audits and control business risks.	

In 2022, CWE did not commit any major violations while there was one violation of the Labor Standards Act of the Republic of China with a fine of NT\$50,000 by the subsidiary CWTC. Items in violation have been corrected.

Violations of the past and improvements

Year	Category	Location	Description	Fine	Improvement
2022	Social	Taiwan	Violation of Paragraph 2, Article 32 of the Labor Standards Act: Overtime hours shall not exceed 46 hours per month	NT\$50,000	Strengthened our control on the threshold for overtime applications within the HR system and instructed department heads to promote the concept of not to work overtime.
2021	Environmental	Taiwan	Violation of waste filing category	NT\$6,000	Corrected the filing and strengthened our review mechanism and education training.
2020	Environmental	Suzhou	Violation of wastewater discharge standards with a total copper concentration exceeding the standard	RMB 300,000	Improved equipment to enhance wastewater treatment. The wastewater discharged has met the regulatory standards.

Major violations of the Company are one-off events. The cumulated fines totaled NT\$1 million.

Participation in Industry Associations

The Company increasingly participates in industry associations and relevant activities. Through participation, we can maintain good interactions with the industry and the society.

Organization	Position
Taiwan Technology Industrial Park Electrical and Electronic Manufacturer's Association	Member
Taiwan Corporate Governance Association	Member
Taiwan Institute of Directors	Member
The Institute of Internal Auditors, R.O.C.	Member
Accounting Research and Development Foundation	Member
Taiwan External Trade Development Council	Member
Securities and Futures Institute	Member

1.3 Business Performance

CWE focuses on the production and sales of back-end packaging materials of semiconductors, deeply involving in semiconductor packaging materials, such as EME, CRM, lead frame and IC Substrate. It has been successful in building an ecosystem for semiconductor materials through reinvestments and is now a major supplier in Taiwan, facilitating the localization of semiconductor supply chain. Starting as an agent of IC packaging materials, the Company has developed into a world-class professional manufacturer of packaging materials - substrates with manufacturing expertise from subsidiaries.

Our sales were NT\$21,858,509 thousand in 2022, an increase of approximately 5.7% from 2021.

Financial Performance

Item (In thousands of NT\$)	2022		2021		2020	
	Amount	%	Amount	%	Amount	%
Net revenue	21,858,509	100%	20,670,509	100%	16,424,018	100%
Gross profit	5,069,322	23%	4,147,963	20%	2,446,976	15%
Operating income	3,424,363	15%	2,559,268	12%	1,321,077	8%
Income before income tax	4,501,463	20%	3,078,874	15%	1,613,366	10%
Net income	3,572,984	16%	2,488,063	12%	1,362,120	8%
Cash and cash equivalents	7,105,505	21%	4,799,437	16%	3,195,751	14%
Current assets	15,826,129	48%	14,718,903	49%	11,117,986	48%
Current liabilities	9,299,580	28%	8,323,087	27%	6,282,083	27%
Long-term loans	6,748,465	21%	6,748,473	23%	6,579,112	28%
Total equity	16,386,946	49%	14,720,967	49%	8,915,540	38%
Total assets	33,121,266	100%	30,308,595	100%	23,319,671	100%
Cash flow ratio	59%		28%		23%	
Return on assets	12%		10%		7%	
Return on equity	23%		21%		16%	

		2022	2021	2020
Direct economic value generated	Revenue	21,858,509	20,670,509	16,424,018
Economic value distributed	Operating costs	15,119,714	15,516,142	13,281,556
	Employee salaries and benefits	2,128,906	1,997,900	1,498,472
	Profit-seeking enterprise income tax	928,479	590,811	251,246
	Remuneration to Directors	60,284	39,095	7,933
	Employee bonus	48,142	37,548	21,966
	Dividends to shareholders	1,744,231	1,378,839	867,449
	Community investments	3,591	950	725
Economic value retained		1,828,753	1,109,224	494,671

Government Subsidies

Item	2022	2021	2020
Government Subsidies	NT\$32,184 thousand	NT\$32,058 thousand	NT\$83,370 thousand

The government subsidies received by the Company and its subsidiaries in 2022 were mainly the concessional loans under the “Welcoming Taiwanese Companies Abroad to Invest in Taiwan Action Plan” and the tax deductions for research and development projects.

Product Services & Innovations

From its establishment in 1989 as a distributor of professional packaging materials and equipment, CWE has been dedicated to the semiconductor packaging industry for more than 30 years. By playing the role of being the bridge between customers and suppliers, CWE and its partner Sumitomo Metal Mining have jointly invested in the production of tape-COF for LCD driver ICs. In the quest for an additional outlet for production, the Company invests in SH Electronics Taiwan and CWTC for the manufacturing of LED lead frames and packaging materials. From being a distribution channel to manufacturing, the applications of our packaging materials are expanded to cover LCD, LED and consumer electronics.

CWE started as a distribution channel of packaging materials. Over the years, it has not only first-class IC packaging engineers, but also the support of quality partners, including excellent packaging materials from Sumitomo Bakelite, matured etching and electroplating techniques from Sumiko, and sophisticated packaging equipment, mold design, and manufacturing capabilities from Apic

Yamada. CWE builds in-house core technology platform with its expertise in the raw materials and production process of lead frames, allowing the subsidiary CWTC to enter the LED EMC lead frame market at an almost perfect moment and be fortunate enough to capture more than half of the market share of high-demand EMC lead frames at that time.

The subsidiary CWTC is capable of not only designing and modifying molds and machines, but also developing unique manufacturing processes, including precise half-etching technology for QFN which improves production efficiency by more than 33%, adoption of photomask plating to replace 80% of the former photoresist plating for QFNs, and in-house pre-mold process to enhance added value. By reengineering the lead frame manufacturing process, we have the ability to set industry standards and meet customer needs with the highest manufacturing efficiency in the industry.

With the rise of emerging technologies such as 5G, AI and IoT, the consumer and automotive electronics markets would continue to grow in size and bring new opportunities for display applications as products shift toward being thin, light, and compact with high value-added or high-end specifications. Using QFN as our raw material, we create different processes to differentiate our products from the market and enter the niche market of lead frames for mini LED and automotive power management.

As lead frames for mini LED display technology and automotive power management enter the mass production stage, new challenges have emerged. Through commercialization of results from our R&D Center, we are developing packaging metal substrates with higher precision, thinner in



thickness, better reliability and greater diversity. By maximizing the number of chips on the laminate substrates in a larger area with high density, we assist customers with improving the product performance, packaging quality, and production efficiency. These products will become the market mainstream in the future.

R&D Investments and Achievements

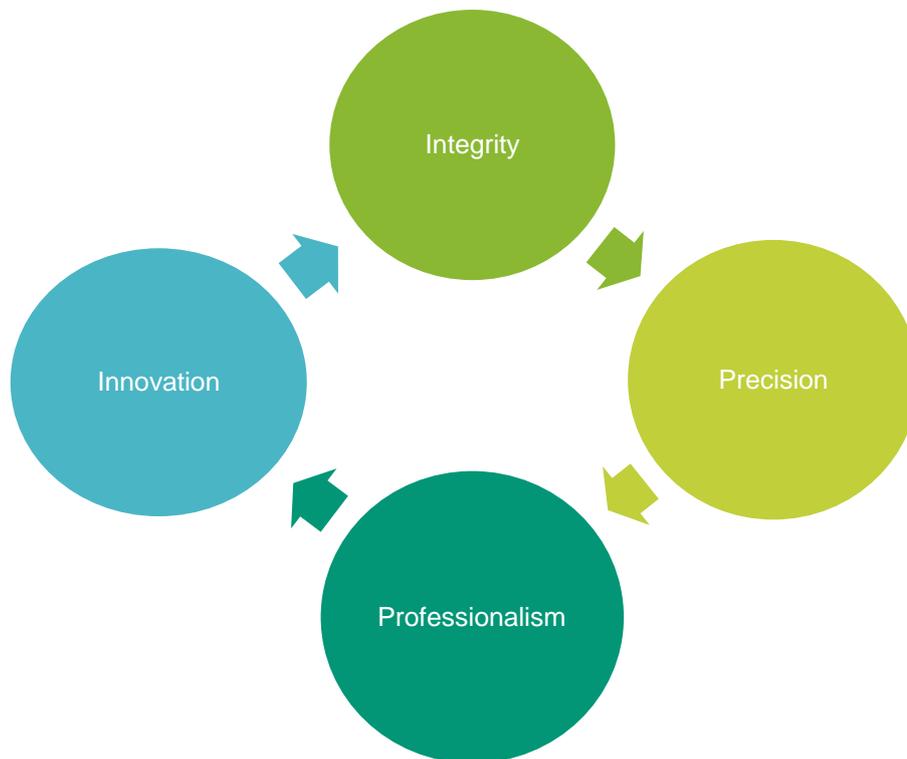
Item		Year	2022	2021	2020
R&D Investments	Net revenue (A)		21,858,509	20,670,509	16,424,018
	R&D expenses (B)		422,594	461,324	228,725
	Total no. of employees (C)		2,282	2,145	2,005
	Total no. of R&D personnel (D)		266	213	118
	Average R&D expense per R&D personnel (B/D)		1,589	2,166	1,938
	Percentage of R&D expenses (B/A)		1.93%	2.23%	1.39%
R&D Achievements	Cumulative no. of patents	Domestic	47	41	43
		Overseas	109	88	78

1.4 Risk Management

Confronted by changes in business strategy and the environment, a sound risk assessment and crisis management system can reduce operational impacts and secure competitive advantages to protect the rights and safety of the Company, customers, investors, suppliers and employees. We instruct each functional unit to conduct risk identification by division of labor, and to formulate management strategies and action plans to mitigate, transfer or avoid risks in order to effectively lower the Company's operational risks.

Business philosophy

- 1.Mission : Understand the changes in technology, introduce advanced materials, provide total solutions for customers, create a win-win situation for customers, and with our belief in sustainability, we aim to create value for employees, customers and shareholders.
- 2.Vision : From being an agent for IC packaging materials to a world-class specialized supplier of packaging material – Substrates by combining the manufacturing experience of subsidiaries.
- 3.Core value :



Integrity - Hold the highest moral standard, build a trust and honest partnership between the company and suppliers, customer and employees to achieve win-win relation with mutual trust and benefit.

Precision - Carry out company policies, develop business with positive and responsible attitudes, deliver on time, enforce quality assurance and pursue excellent customer satisfaction.

Professionalism - Possess skills to provide comprehensive services, offer diverse, timely products per customers' demands, and deliver complete technical consulting services.

Innovation – Understand market dynamics and product technology development, seek more effective solutions for customers and become a leading company in the industry.

4. Quality policy: Strive for the highest quality within the industry and provide customers with complete and superior products.

Risk Response Strategies

In accordance with our risk management policy, each risk management unit identifies its risks and response strategies thereof within the risk management scope to ensure these risks are contained within its tolerance level. Each functional unit would monitor the risks periodically and report its risk management status to the management team on a regular basis.

Financial Risks

Interest rate

- Regularly assess interest rates and financial information of the money market.
- Determine the use of funds based on the cost of capital and possible returns and risks.

Exchange rate

- Achieve a certain degree of natural hedging through trading and adjust the positions of assets and liabilities denominated in foreign currencies in a timely manner.
- CWE would use professional financial information system to monitor exchange rate fluctuations on a timely basis and take active steps to mitigate the negative impact of exchange rate volatility.
- CWE periodically assesses its foreign-currency net asset (liability) positions and utilizes foreign exchange swaps to mitigate currency risk.

Inflation

- Closely monitor price fluctuations in the upstream raw materials markets.
- Maintain good relationships with suppliers and customers in order to properly adjust the inventory level of raw materials.

Operational Risks

Peers competition

- Map out cross-regional strategies with developments in the Asia-Pacific market as our advantages.
- Maintain excellent customer relations to enhance customer loyalty and trust.

Shrinking of profit margin

- Increase product applications.
- Strengthen product reliability in terms of design and verification and enhance customer satisfaction so as to gain more sales opportunities.

Customization affects production efficiency

- Focus on major customers, concentrate on advantages of mainstream products, and move towards planned production to improve production efficiency.
- Strengthen communication and improve production timeliness and efficiency in order to lower the inventory level of work in progress.

Barrier to entry for high-end products

- CWE has close ties with customers. Thus, we can introduce appropriate high-end packaging materials for use to gain a head start.
- Constantly keep track of the development in high-end products and technology and introduce timely and appropriate materials to every packaging firms.

Climate Change Risks

Water resources

- Push for a reduction in process water consumption, build wastewater recycling facilities, and improve wastewater treatment efficiency.
- Map out short, medium and long-term recycling targets with a projected increase of 5~10% in recycling volume every year.

Carbon management

- Implement energy-saving schemes, regularly monitor carbon emissions and review reduction measures.
- Install renewable energy facilities such as rooftop solar systems to increase the proportion of green power.

Social Risks

Talent recruitment

- Initiate talent nurturing policies with planned and systematic training for long-term talent developments in order to mitigate the impact of talent gap on the Company.
- Recruit foreign workers in accordance with laws and regulations to narrow the talent gap and ensure normal production capacity.

Assessment on Impact of Climate Change

1. The extent of influence or impact of GHG emissions :

(1) Risk of compliance with climate change-related regulations

Taiwan has established regulations such as the “Greenhouse Gas Reduction and Management Act” and the “Renewable Energy Development Act”. We will gradually improve our GHG emissions in line with the national policies and fulfill our responsibilities as a global citizen.

(2) Physical risk of climate change

Short-term physical risk : Climate change may lead to extreme weather events including typhoons, floods, and droughts, affecting our equipment and operations.

Medium and long-term physical risks: Extreme weather leads to a gradual scarcity of energy and resources, such as water, electricity and fuel, and may result in shutdowns.

(3) Opportunities from climate change

Promote low-carbon technology and process: Improve energy and resource efficiency, lower medium and long-term operating costs and achieve the goal of carbon reduction.

Improve supply chain stability: Improve product delivery and frequency and enhance customer satisfaction.

Improve natural disaster resilience: Actively participate in renewable energy programs to enhance climate adaptation capabilities and monitor climate change-related risks through management.

2. Strategies, methods and targets of GHG management :

(1) Strategies for climate change and GHG management

In terms of our framework for promoting sustainable developments, the President is the

convener with the ESG Unit of CWE Group coordinating relevant matters. The Board oversees and gives guidance on environmental, social and governance issues of sustainable development and receives reports on the effectiveness of promotion and corporate strategies. The Board reviews strategy progress and urges the management team to make adjustments when necessary.

(2) GHG reduction targets

We are committed to energy conservation and carbon reduction, and conduct GHG inventory annually with the target of reducing carbon dioxide emissions every year.

(3) Budget and plans for GHG reduction

Use energy efficient facilities within our plants.

Adopt LED lighting at all sites.

Facilities with Level-I energy ratings are preferred in our plants.

(4) Carbon reduction effects of our products or services to customers or consumers

Our electricity intensity dropped 18% in 2021 compared to 2020.

Our electricity intensity dropped 8% in 2022 compared to 2021.

Information Security Management

1. Purpose and scope :

(1) Purpose: To maintain the normal operation of our information system and mitigate operational risks due to human errors, external cyberattacks or force majeure events such as natural disasters, thereby ensuring business continuity.

(2) Scope: Information system and software/hardware devices associated with business operations.

2. Information security management structure :

(1) IT Division and Administration Division are jointly responsible for the operation of information security management and lead the formulation of relevant policies.

(2) Information security policies are regularly reviewed and revised based on current situations to ensure an effective operation of information security management.

(3) The IT Division is responsible for the promotion of information security and the reporting and responses of information security incidents.

3. Information security control measures :

(1) Strengthen external threat protection and track monitoring, and enhance information security transparency to lower operational risk.

(2) Establish information service platform of high availability to ensure the continual operation of the Company.

(3) Establish management mechanisms in compliance with applicable rules and carry out regular reviews and amendments to satisfy the ever-changing information security standards.

4. Information security control measures :

(1) Protection against information security threat

a. Install information security protection software (anti-virus/endpoint detection and response, etc.) on servers and personal computers and have the central management platform updating the threat definition files regularly.

b. Initial automatic updating service to apply patches to vulnerabilities in user end and server systems. Major threats or areas where automatic updating mechanism does not apply,

manual updating shall be adopted.

- c. Introduce Security Operation Center (SoC) platform to gather and analyze information security tracks and establish early warning mechanism.

(2) Core system of high availability (HA)

- a. Initiate HA mechanism at virtual systems to avoid having the malfunction of a single node (server, network device, storage device, etc.) affecting the operation of core system.
- b. Set schedule for core systems to run backups automatically and have an off-site backup.
- c. Carry out disaster recovery drills regularly to verify the continual operation of high availability service.

(3) Account and personnel management

- a. All employees shall sign non-disclosure agreements (employment contracts) to ensure their understanding on responsibilities and obligations associated with the use of corporate information or execution of tasks and thereby protect the confidentiality and integrity of corporation information assets and prevent unauthorized access, modification, sabotage or improper disclosure.
- b. Password expiration and strengthened password principle (password length and complexity) shall be applied to system accounts. Where necessary, multi-factor authentication mechanism shall be adopted to enhance identity authentication.
- c. Promote information security and carry out social engineering drills regularly to increase employees' awareness of information security.

(4) System access control

- a. Initiate access controls on the Company's information assets and relevant resources and adopt the principle of least privilege for management.
- b. The application for and amendments to system access will leave modification records for auditing purpose.

5. Resources allocated to information security management :

Category	Execution Outcome
Continual operation and enhancement of information security system	Information security expense amounted to NT\$95 thousand (15%) and non-information security expense amounted to NT\$548 thousand (85%) for a total of NT\$643 thousand in 2022.
Information security enhancement project	Adopt two-factor authentication (2FA) to enhance identity authentication
Audits by key customers	Cooperate with the information security audits of key customers and propose improvement plans
Employee education and training	Promote information security regularly and report relevant incidents
Regular checks on core system	Risk event alert and threat analysis of core system

6. The Company had no significant complaints related to violation of customer privacy or loss of customer data in 2022.

1.5 Supplier Sustainability Management

Suppliers are not only crucial resources but also important partners to the Company. Therefore, CWTC values supplier sustainability management. We also implement supplier management procedures to ensure workplace safety, protection of the environment, working conditions, human rights, and social responsibilities as well as ethical compliance. We verify suppliers' basic financial status, quality management, environmental management, and other system certifications through the supplier data sheet, and ask suppliers to sign the conflict minerals statement. New suppliers are subject to factory visits and evaluations. These measures are to ensure suppliers' compliance with relevant regulations. Furthermore, we have regular on-site visits and evaluations every year. These evaluations cover quality management, delivery schedule, system management and sustainability risk assessment. Candidates would become qualified suppliers only when the evaluations are completed and such applications are approved by the procurement, quality assurance, engineering, and relevant departments. In 2022, there were no factory visits and evaluations as we did not have new major raw material suppliers.

None of the Company's existing suppliers nor contractors had any significant negative impact, either actual or expected, on the environment, labor conditions, human rights and society in 2022.

Industry	Upstream	Midstream	Downstream	Product Applications
Semiconductor	IC design, IC manufacturing	Distributor of IC packaging materials	IC packaging companies, IC testing companies	LCD panels, automobiles, computers and peripherals, lighting fixtures, handheld consumer electronics devices, precision instruments, aerospace industry
IC LED	Copper alloys, nickel-iron alloys, industrial epoxies	Lead frame manufacturers	IC packaging companies LED packaging companies	

The Company safeguards employees, the environment, and ethical management in the spirit of RBA, and conducts supplier sustainability risk surveys and audits on high-risk suppliers. Suppliers are categorized by type into primary materials, secondary materials, and others, and their sustainability management is divided into five risk levels. High-risk suppliers would be required to make improvements within the prescribed timeframe. Those who fail to make improvements on time would be disqualified from our supplier list. In 2022, CWE Group assessed 10 primary materials suppliers, and none of them were found to have significant or potential negative social impacts.

Risk Level	Risk Score	No. of Suppliers
Extremely Low	0~3	9
Low	4~6	1
Average	7~9	0
High	10~12	0
Extremely High	13~15	0

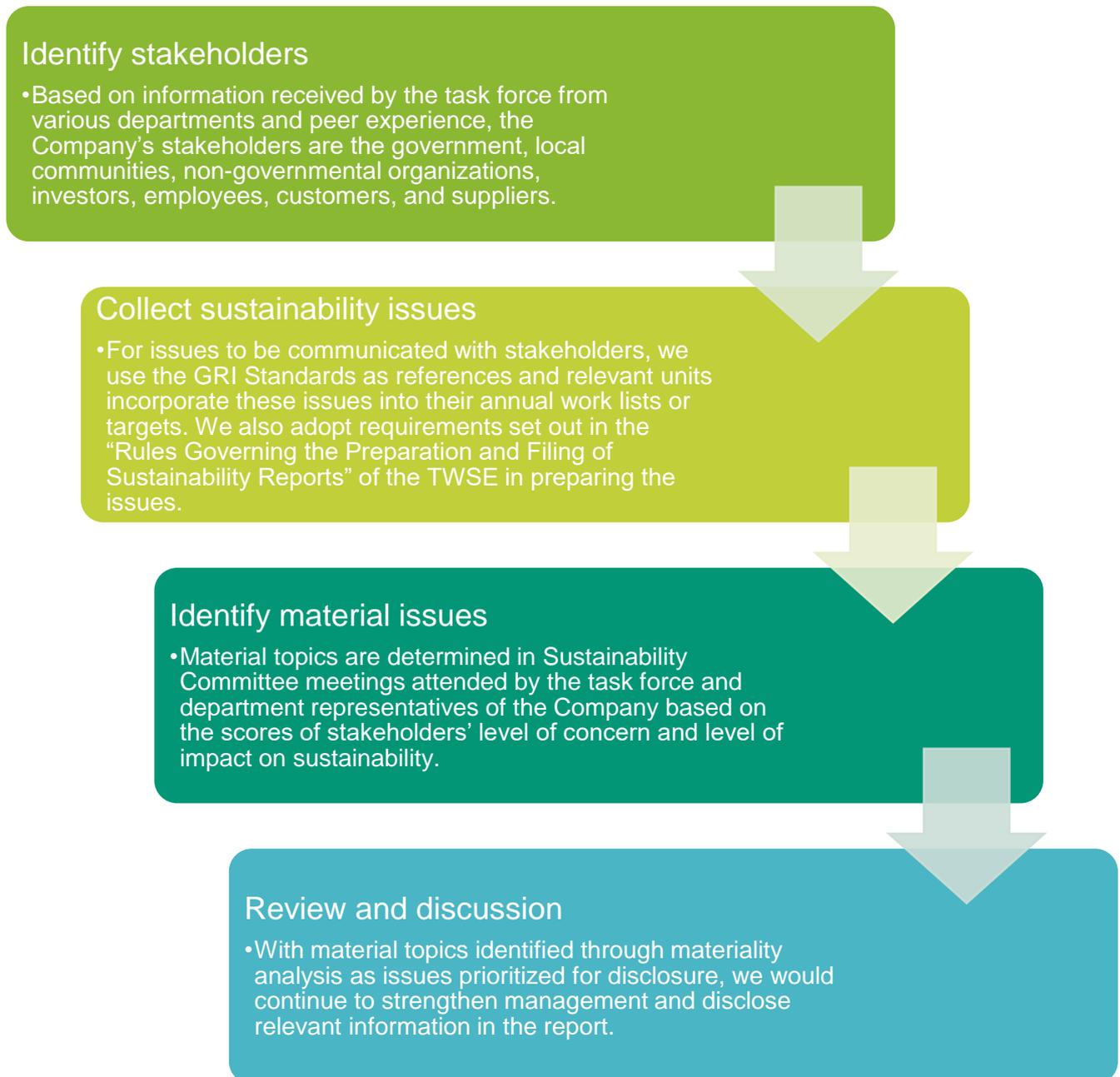
1.6 Stakeholders

We have established transparent and effective channels for communication with stakeholders in order to understand their issues of concern. We adopt these issues as important indicators for the Company's sustainable developments and as references for decision-making and information disclosure in our formulation of business policies for sustainability.

[Analysis of Material Topics](#)

CWE follows the GRI standards issued by the Global Sustainability Standards Board.

Relevant steps are described below :



Materiality Analysis Chart for Issues Concerned by Stakeholders



Economic Topics	Environmental Topics	Social Topics
01. Business performance	02. Energy 03. Water and effluents 04. Emissions 05. Waste	06. Employment 07. Labor/Management Relations 08. Occupational health and safety 09. Diversity and equal opportunity 10. Local communities 11. Customer privacy

Identification of Boundaries for Stakeholder Concerns

Material Topic	Corresponding GRI Standard	Corresponding Chapter	Within the organization All Sites	Customer	Supplier	Investor	Non-profit organizations
Business performance	GRI201	1.3 Business performance	•	•	•	•	•
Occupational health and safety	GRI403	3.4 Occupational safety and health	•	•	•	•	•
Energy	GRI302	2.2 Energy management	•	•			•
Water and effluents	GRI303	2.3 Water resources management	•	•			•
Emissions	GRI305	2.2 Energy management	•	•			•
Waste	GRI306	2.4 Pollution emission and prevention	•	•			•
Employment	GRI401	3.1 Talent recruitment and workforce structure	•			•	•
Diversity and equal opportunity	GRI405	3.1 Talent recruitment and workforce structure	•				•
Labor/Management Relations	GRI402	3.2 Employee benefits	•				•
Local Communities	GRI413	4.1 Welfare Activities				•	•
Customer privacy	GRI418	1.4 Risk management	•	•			

Communication Channels with Stakeholders

Stakeholder	Material Topic of Concern		Frequency	Means of Communication	Communication Channel
Employee	Business performance Energy Water and effluents Emissions Waste Employment Labor/ management relations	Occupational health and safety Diversity and equal opportunity Customer privacy	Quarterly, annually, when needed	<ol style="list-style-type: none"> 1.Improvement proposal incentive form: For employees to submit proposals at any time, and bonuses would be given based on the outcome as an incentive. 2.Employee opinion mailbox and reporting hotline: For employees to report issues which would be handled immediately by dedicated personnel. 3.Labor-management and employee welfare committee meetings: For employees to propose suggestions and negotiate with the Company. 4.Human Resources Arbitration Committee: It conducts performance assessments and promotion list reviews every year and holds reward/punishment review meetings when needed. 5.Environmental Management Committee: It holds quarterly meetings where employees can submit environmental suggestions for approval and implementation. 	Contact: Mr. Chen ericchen@cwei.com.tw Contact : Miss Huang amy.huang@cwei.com.tw
Customer	Business performance Energy Water and effluents Emissions	Waste Occupational health and safety Customer privacy	Quarterly, annually	<ol style="list-style-type: none"> 1.Monitor and discuss product quality and process, and provide technical support when needed. 2.Communicate with customers about orders and delivery schedules. 3.Conduct annual customer interviews and audits and discuss product quality, new product development and future prospects of the Company. 	
Supplier	Business performance	Occupational health and safety	Annually	<ol style="list-style-type: none"> 1.Supplier audit and interview. 2.Inspection at equipment suppliers' premises. 3.Face-to-face/telephone/e-mail communication. 4.Construction Safety Commitments. 5.Supplier evaluation form. 	
Investor	Business performance Employment	Occupational health and safety Local Communities	Monthly, quarterly, annually	<ol style="list-style-type: none"> 1.Investor Relations section on the official website. 2.Annual shareholders' meeting. 3.Periodic release of financial reports. 4.Regular investor conferences. 	
Non-profit organizations (governments, local communities, non-governmental organizations, etc.)	Business performance Energy Water and effluents Emissions Waste Employment	Labor/management relations Occupational health and safety Diversity and equal opportunity Local Communities	Monthly, quarterly, annually	<ol style="list-style-type: none"> 1.Comply with relevant laws and regulations of authorities at all levels. 2.Official correspondence. 	

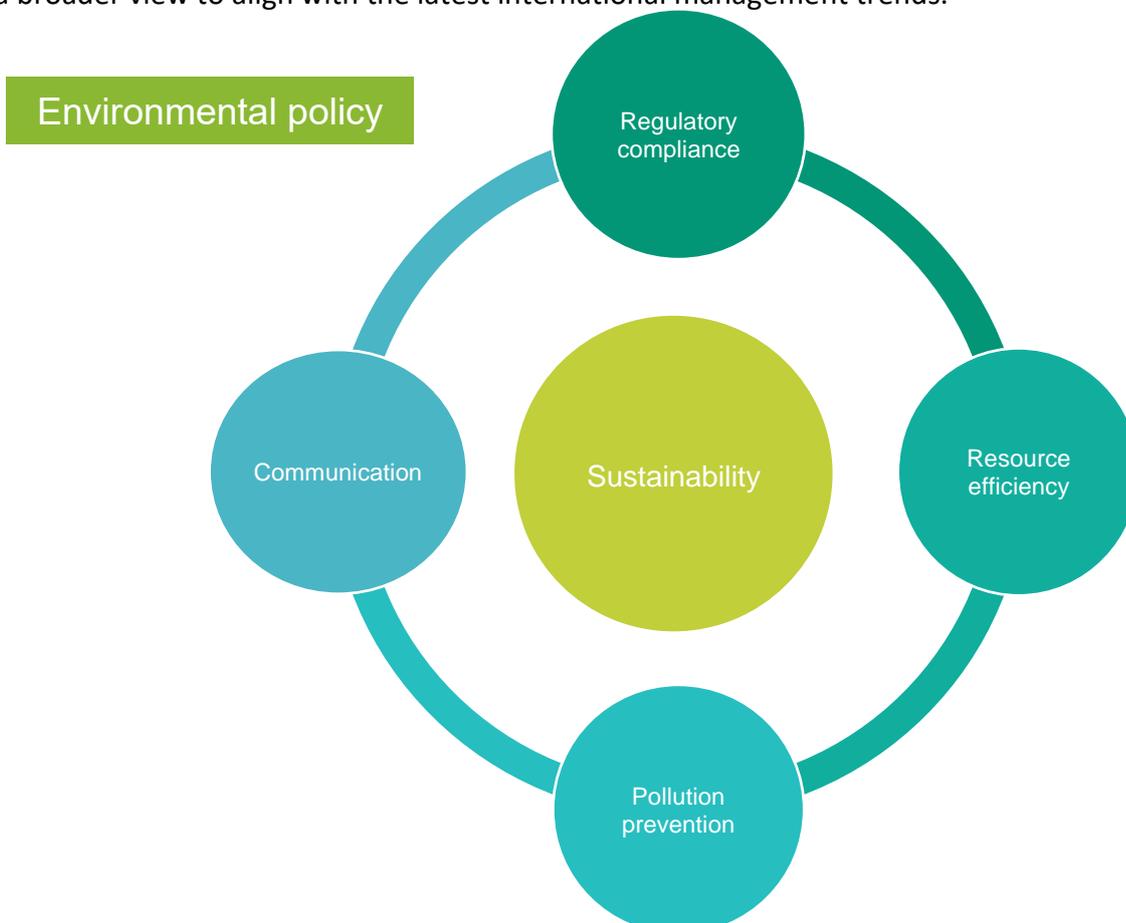
Friendly Environment

2.1 Environmentally Sustainable Development

The Company's subsidiary is a professional manufacturer of metal lead frames, dedicated to production, manufacturing and product development. Our operation model is built on the business philosophy of humanity, reasonableness, standardization and globalization with a fair and open management style. As we are well aware of the potential environmental impact of our products, activities and services, we are determined to adopt company-wide "environmental management system" and advocate "full participation, protection of social resources and regulatory compliance".

Our environmental management unit includes the Environmental Management Committee of the head office and the Environmental Safety Center and Occupational Safety Office of each site. It is dedicated to internal and external issues proposed by all units and the integration of environmental aspects identified into assessments. It also assists with the review and verification of environmental data from each unit. A committee chaired by the plant chief is established at each site to hold quarterly meetings on performance reviews. Unit heads and employee representatives are invited to jointly coordinate, discuss, and review environmental management issues, demonstrating the importance of environmental management.

Our plants, both domestic and overseas, have adopted ISO14001 Environmental Management Systems with certifications acquired. The latest version of ISO14001:2015 was introduced with certification received in 2016 for our Taiwan plants and 2020 for our overseas plants. The practice extends environmental management to the entire product life cycle as well as the environmental risks and mechanisms at each stage. It also determines the strategic approach and action plan from a broader view to align with the latest international management trends.





ISO14001:2015 certification for plants in Taiwan



ISO14001:2015 certification for overseas plants



ISO14001:2015 certifications for plants in Mainland China

2.2 Energy Management

In response to global energy shortage and the urgency of GHG reduction, CWTC pushes for production machinery assessment to reduce energy consumption and drives energy efficiency improvement of plant facilities. We consolidate energy-saving proposals from all units to set relevant targets and action plans every year and periodically monitor and control our performance. Based on our energy-saving plan submitted to the Bureau of Energy, Ministry of Economic Affairs, the average energy-saving rate approved for our Taiwan site was 2.11% in 2022.

In line with the government’s promotion of renewable energy, we have increased the installed capacity of solar panels in our Kaohsiung plant by 6,230 kwp in 2020 with a cumulative capacity of 6,239 kwp in 2022, providing 8,760 MWh. Our new Kaohsiung plant scheduled to commence production in 2023 will bring an additional installed capacity of 126 kwp for our total capacity of solar panels to reach 6,365 kwp. We fulfill our social responsibilities as a global citizen and as an enterprise.

Energy Consumption in 2022

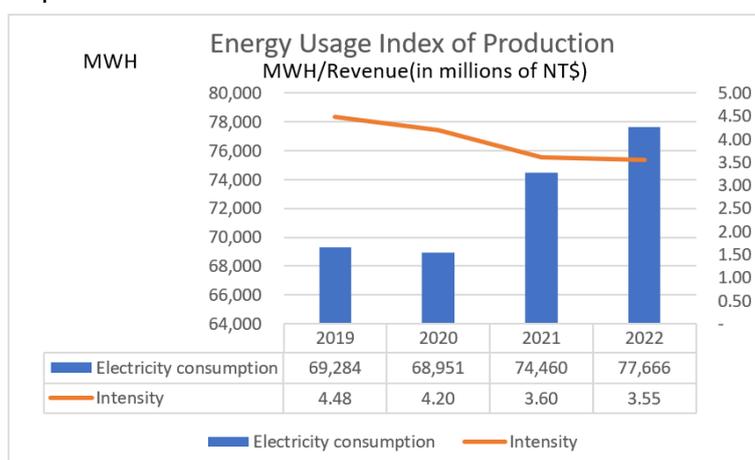
The total energy consumption of diesel fuel, gasoline, natural gas and electricity for our plants in Kaohsiung, China and Malaysia as a whole is as follows:

Consumption in 2022	Item	KWH	GJ	%
Direct Energy	Diesel fuel	326	1	-
	Gasoline	223	1	-
	Natural gas	6,261,349	22,540	7%
Indirect Energy	Purchased electricity	77,665,563	279,597	93%
Total Energy		83,927,461	302,139	100%

Note: Conversions are based on the “Heat Content of Energy Products” of the Ministry of Economic Affairs.

Energy Usage Index of Production

Production equipment and facilities systems account for the majority of our electricity consumption. Within the total electricity consumption of 77 GWh in 2022, process and air conditioning took up 54% and 24% of the total consumption, respectively. In order to improve electricity efficiency, we implement energy-saving measures. The electricity consumption per unit product decreased by 19% in 2022 compared to 2021.



Energy-saving Measures

In response to domestic and international pressures to reduce carbon, energy consumption and GHG emissions, the Company promotes various energy-saving measures to improve energy efficiency of facilities and production equipment. The plans focus on operational efficiency optimization and parameter settings of production equipment, and adoption of energy-saving lighting. The target for 2023 is 2% of the annual electricity consumption.

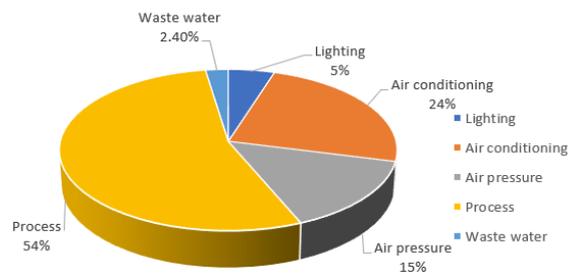
Key points of energy-saving programs

Site	Taiwan	China	Overseas
Parameter settings	★	★	★
Production process integration	★		★
Equipment process integration	★	★	
Energy-saving of facilities	★	★	★

We achieve energy conservation with efforts in various aspects and promote energy-saving measures by phases. The short-term plans are to replace existing air conditioners with central air conditioning systems, use LED lighting at all sites, install LED motion sensor security lights, adopt motion sensor landscape ground lights for pathways, and give priority to energy-efficient facilities or ones with Level-I energy ratings. In addition, we gradually replace power-consuming equipment, such as air compressors and water chillers, with energy-efficient models, and set up a central monitoring system to manage their operation. Our medium and long-term plans are to use the central monitoring system for energy consumption control of utilities equipment and continue to introduce the latest energy-saving technologies to improve the efficiency of processes and utilities equipment.

Through energy-saving promotions (e.g., turning off lights and computers at the end of the day), energy-saving lamps are used company-wide while motion sensor lightings are employed for areas where constant lighting is not required. Employees change their daily habits to cut down energy consumption and loss. In 2022, the Company's electricity consumption totaled 279,596GJ with an electricity intensity of 3.55kWh/thousands of NT dollars. Due to the increase in production capacity, electricity consumption went up by 742GJ in 2022, whereas the electricity intensity dropped 1.4% compared to 2021. The results indicated the effectiveness of our energy management. In the future, we will continue to focus on plans concerning energy efficiency, adoption of renewable energy or alternative energy, etc.

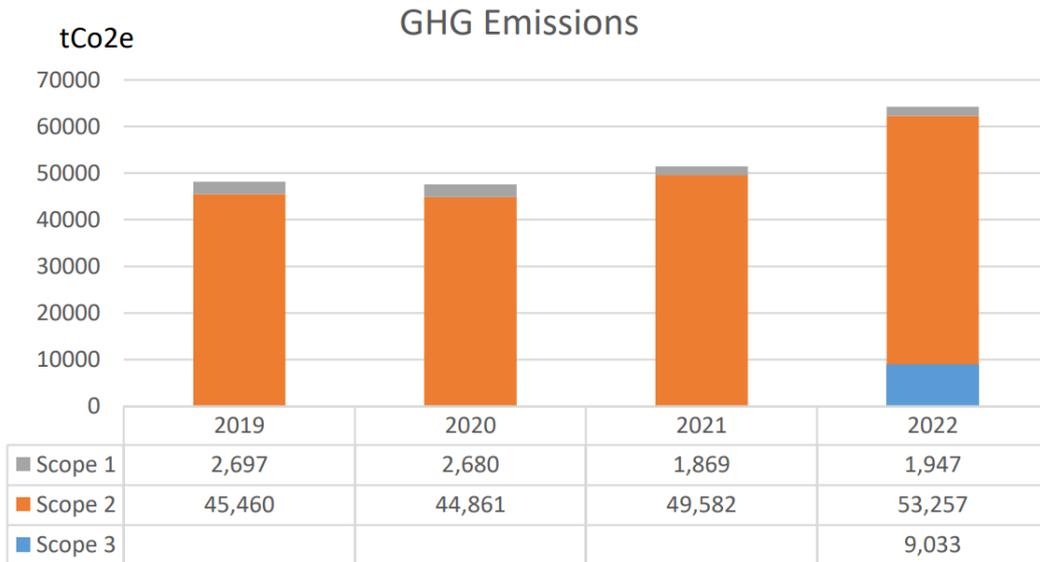
Annual Electricity Consumption Breakdown for 2022



GHG Emissions Management

In order to fulfill our social responsibilities, we voluntarily carry out GHG inventory and disclose GHG emissions every year. To meet our own targets, subsidiary Chang Wah Technology adopted ISO14064-1:2018 for our 2022 GHG inventory of Taiwan site to set an example. GHG data were

consolidated using the operational control approach and verified by a third-party assurance agency. As purchased electricity is the main source of GHG emissions, we analyze electricity consumption of our plant equipment and strive to reduce energy loss and improve energy efficiency. Power for process accounts for 54% of our electricity consumption, ranking number one in terms of energy use, followed by air conditioning, air compressors, lighting and wastewater treatment facilities.



Note: We started to calculate Scope 3 emissions for Taiwan site in 2022.

[GHG Emissions over the years](#)

We adopted external inventory under ISO14064-1:2018 for the first time at Taiwan site in 2022 with voluntary inventory for Scope 1 and Scope 2 only at China and Overseas sites. The calculation of GHG emissions used the “emission factor approach” along with the Greenhouse Gas Emission Factor Table (6.0.4) of the Environmental Protection Administration and the IPCC AR-6.

Category 1 (1,947 metric tons) Direct GHG emissions Scope 1	Category 2 (53,257 metric tons) Indirect GHG emissions Scope 2	Category 3~6 (9,033 metric tons) Other indirect GHG emissions Scope 3
<ul style="list-style-type: none"> • Mobile combustion: Corporate cars and forklifts - CO₂, CH₄, N₂O • Stationary combustion: Emergency generators and analytical instruments for laboratory - CO₂, CH₄, N₂O • Fugitive emission: Septic tanks, air-cooling facilities and fire-fighting facilities - CH₄, HFC_s 	<ul style="list-style-type: none"> • Imported electricity emissions (purchased electricity) 	<ul style="list-style-type: none"> • Upstream transportation and distribution, employee commuting and business travel • Purchase of goods • Disposal of waste from operation • Fuel and energy-related activities (excluding categories 1 and 2)

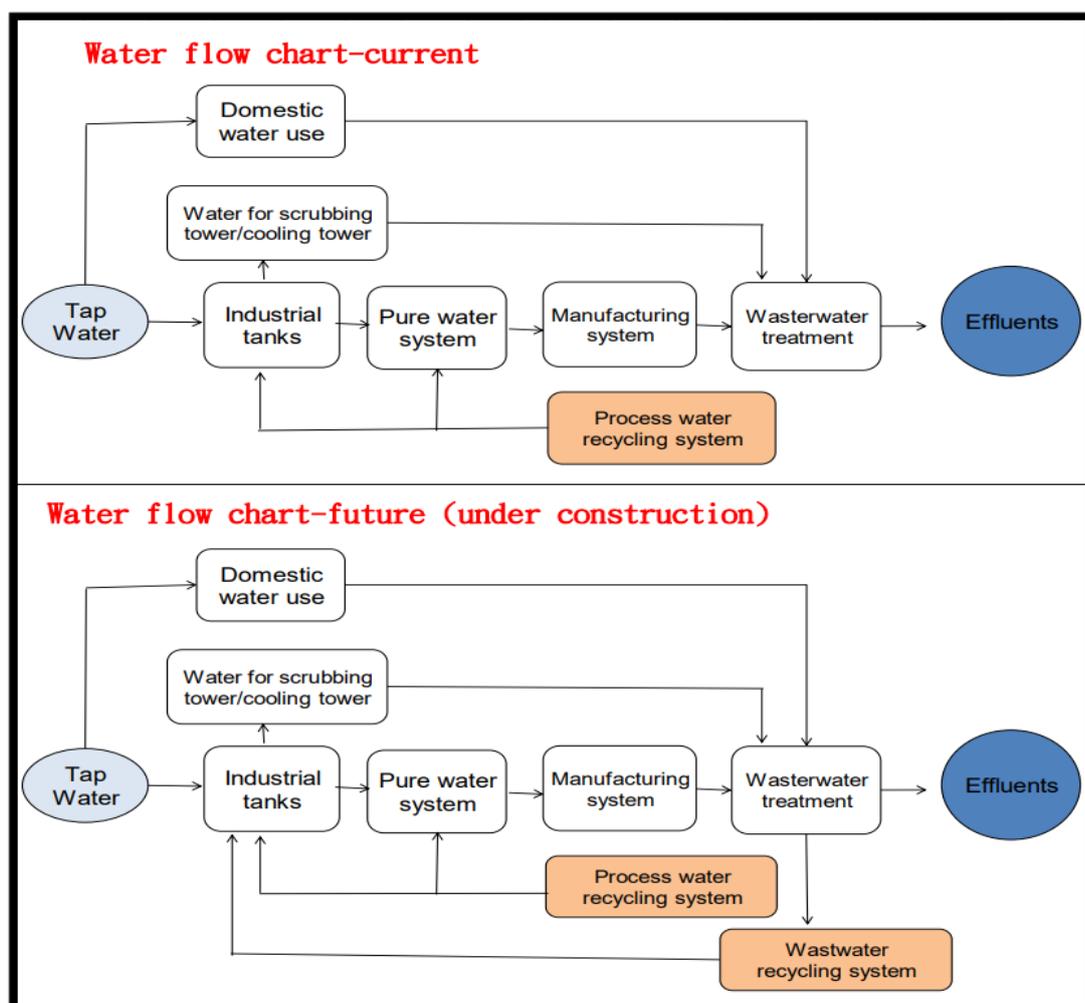
GHG emission intensity (scope 1 + scope 2)

Year	2019	2020	2021	2022
Total GHG emissions tCO ₂ e	48,157	47,541	51,451	55,204
Intensity (tCo ₂ e/ Revenue in millions of NT\$)	3.116	2.895	2.489	2.525

2.3 Water Resources Management

CWE is located in the Kaohsiung Nanzih Technology Industrial Park. Our water comes entirely from the Taiwan Water Corporation; therefore, water sources are not affected. In view of the limited water resources in Taiwan, we have gradually installed recycling systems with membrane filtration process at our Taiwan site since 2021 to increase our water recycling rate and lower tap water consumption. These systems also mitigate water risk during the dry and drought seasons.

Our overseas plants are located in industrial parks where water comes from local water companies. In line with our water saving and recycling policy, the Suzhou plant has installed a water reclamation system ahead of others to recycle and reuse process water above a certain quality level. The system is mainly for cleaning and electroplating processes where a large volume of water is required. The recycling and treating of secondary water bring our internal water cycle to a certain standard, thereby reducing raw water supply and achieving the goal of a significant reduction in water consumption. In view of the water-saving benefits in our Suzhou plant, other plants have started to schedule the installation of water reclamation systems.



Use of Regional Water Resources

Region		Taiwan	China		Overseas
		Kaohsiung Plants	Chengdu Plant	Suzhou Plant	Malaysia Plant
Water Sources	Tap water	★	★	★	★
	Groundwater and others	★			
Water supply (10 thousand metric tons/day)		158.7	60	45	49.6
Water withdrawal (10 thousand metric tons/day)		0.11	0.06	0.1	0.09
Use of Regional Water (%)		0.07%	0.1%	0.2%	0.18%

Note: Water supply is derived from data on the websites of the Water Resources Agency and the local water companies.

Use of water resources and performance management

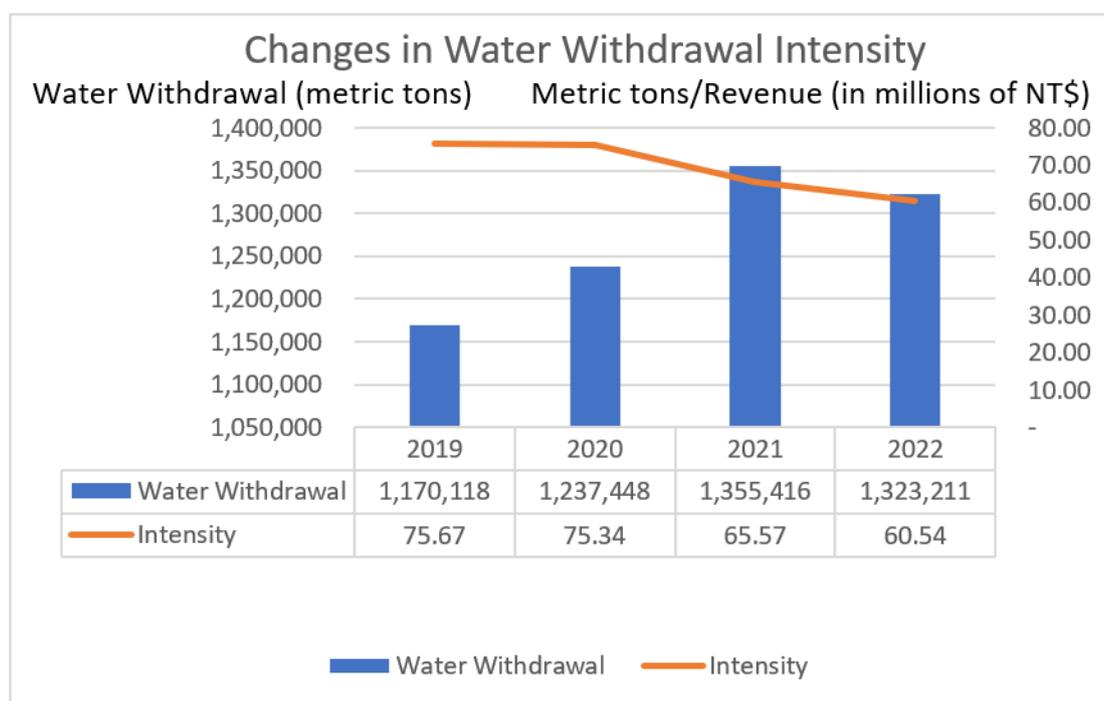
CWE uses tap water mostly for wet processing (electroplating), cleaning and environmental protection. Water consumption by site for 2022 is shown in the table below. In the face of global climate changes in recent years, we continue to monitor our water consumption and proactively promote plant-wide water-saving measures to ensure there is no immediate water scarcity issue arising from a lack of water resources. Furthermore, our Taiwan plants have started to install systems for process water recycling since 2021. The systems treat and filter rinsing water with high acid concentration for reuse instead of releasing it directly from the wastewater treatment plant as was our previous practice, thereby increasing the reuse rate of process wastewater. There are also other water-saving measures in place to lower our water consumption.

Unit: Metric tons SITE	Item	Year			
		2019	2020	2021	2022
China	Water withdrawal (A)	603,849	628,945	640,388	585,540
	Water recycled (B)	964	27,271	97,820	140,633
	Total consumption (C=A+B)	604,813	656,216	738,208	726,173
	Water discharge (D)	474,900	472,011	527,604	474,698
	Water consumption	129,913	184,205	210,604	251,475
Taiwan	Water withdrawal (A)	278,415	306,547	387,883	417,085
	Water recycled (B)	36,261	47,694	70,084	95,757
	Total consumption (C=A+B)	314,676	354,241	457,967	512,842
	Water discharge (D)	261,477	293,842	369,735	379,147
	Water consumption	53,199	60,399	88,232	133,695
Overseas	Water withdrawal (A)	287,854	301,956	323,892	320,586
	Water recycled (B)	215,919	245,082	266,632	265,953
	Total consumption (C=A+B)	503,773	547,038	590,524	586,539
	Water discharge (D)	215,919	245,082	266,632	265,953
	Water consumption	287,854	301,956	323,892	320,586

SITE	Item	2019	2020	2021	2022
China	Water recycled / Total consumption (%) = (B/C)	0.2	4.2	13.3	19.4

	Recycling rate (%) = (B/A)	0.2	4.3	15.3	24.0
Taiwan	Water recycled / Total consumption (%) = (B/C)	11.5	13.5	15.2	18.7
	Recycling rate (%) = (B/A)	13.0	15.6	18.1	23.0
Overseas	Water recycled / Total consumption (%) = (B/C)	42.9	44.8	45.2	45.3
	Recycling rate (%) = (B/A)	75.0	81.2	82.3	83.0
Total	Water recycled / Total consumption (%) = (B/C)	17.8	20.5	24.3	27.5
	Recycling rate (%) = (B/A)	21.6	25.9	32.1	38.0

Changes in Water Withdrawal Intensity



2022 Water Withdrawal

Water Withdrawal (megaliters)

Item	All Sites	Areas with Water Stress	
Third-party water (total)	1,323	383	
Freshwater	1,323	383	
Others	0	0	
Third-party water based on withdrawal sources (total)	Surface water	1,323	
	Groundwater	0	
	Seawater	0	
	Produced water	0	
Total water withdrawal	Surface water (total) + groundwater (total) + seawater (total) + produced water (total) + third-party water (total)	1,323	383

Note : 1. The Company's water withdrawal sources exclude surface water, groundwater, seawater and produced water.

2. For areas with water stress, please refer to the Aqueduct Water Risk Atlas.

2022 Water Consumption

Water Consumption (megaliters)

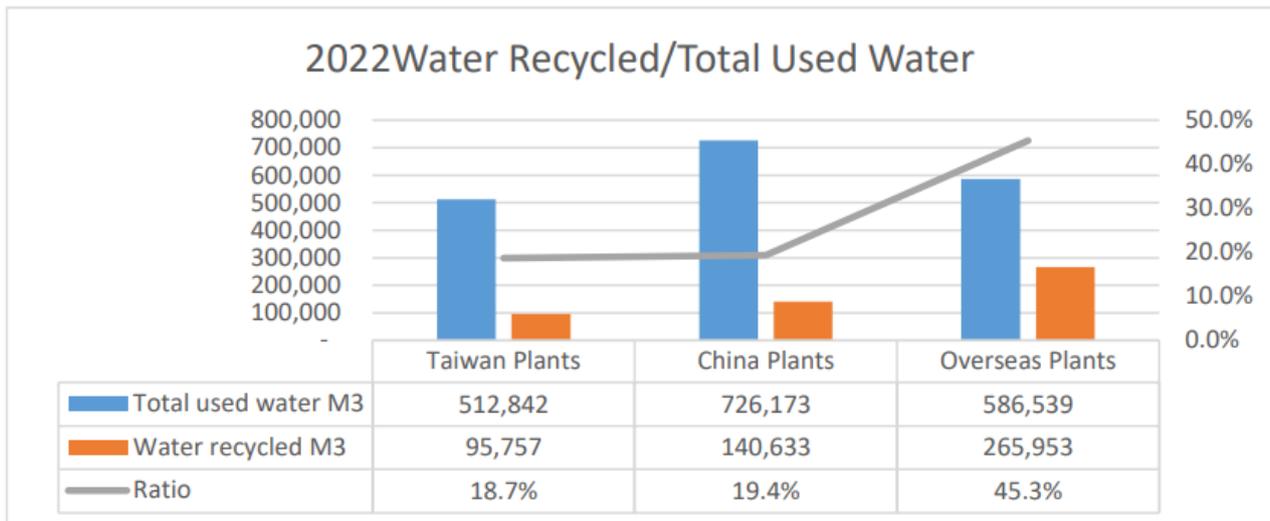
Item		All Sites	Areas with Water Stress
Water consumption by destinations	Total water consumption	706	233

Water conservation measures within the plants

Water Reclamation System - recycling and reuse of process water

To cherish the water resources, all sites have gradually adopted the “water reclamation system” to recycle and reuse process water above a certain quality level. The system is mainly for cleaning and electroplating processes where a large volume of water is required. The recycling and treating of secondary water bring our internal water cycle to a certain standard, thereby reducing raw water supply and achieving the goal of a significant reduction in water consumption.

In 2021, the Taiwan plants installed recycling systems where process water is recycled for reuse through ultrafiltration (UF) and reverse osmosis (RO) processes. In 2022, we adopted membrane bioreactors (MBR) devices to replace the UF system. The enlarged membrane pore size increased fluxes and improved the fouling problem, thereby enhancing the efficiency of the water recycling system. At the same time, the switch reduced the frequency of backflushing and chemical cleaning and consequently the consumption of recycled water. In addition, the replacement of filter bags at a lower frequency was equivalent to waste reductions. In 2022, the combination of MBR and RO processes increased the average daily volume of recycled water to the industrial tanks by 200 metric tons, lifting the water recycling rate by 4.9% compared to 2021. We plan to install a second set of MBR system in 2023 and expect to have an additional 100 metric tons of recycled water every day.



Pure Water Recycling System - recycling and reuse of pure water

Water derived by putting the concentrate water from RO systems through RRO system is used in our manufacturing process. Treatment by the 2B3T process in RO system allows the quality of concentrate water from RRO system to be superior than the tap water. Therefore, the water is recycled for reuse through the industrial tanks. In 2022, our pure water recycling system recovered 66,767 metric tons of water within our Taiwan plants, accounting for 13% of the total water volume.

Water-saving design of machinery and equipment

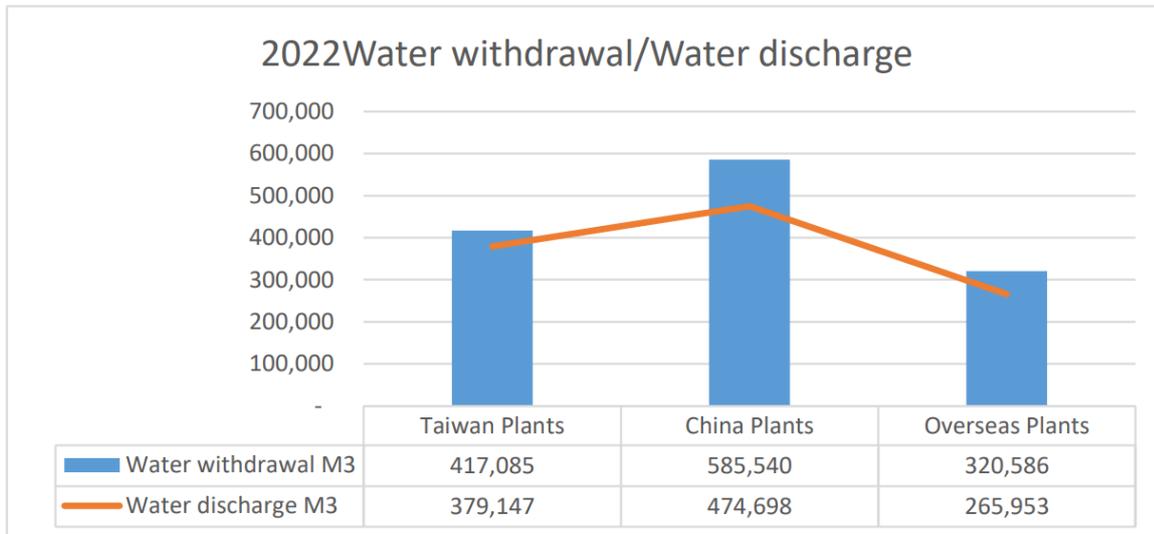
Electroplating equipment adopts the counter-current rinsing design where the rinse water is circulated through three washing tanks, achieving water conservation.

Related facilities

<p style="text-align: center;">Control panel of recycling system</p> 	<p style="text-align: center;">Raw water tank for recycling</p> 
<p style="text-align: center;">MBR filtration</p> 	<p style="text-align: center;">RO filtration</p> 

Waste water discharge and water quality monitoring and control

Wastewater discharged from our Taiwan, China and overseas sites amounted to 379,000 metric tons, 474,000 metric tons and 265,000 metric tons in 2022, and 370,000 metric tons, 527,000 metric tons and 266,000 metric tons in 2021, respectively. Wastewater of each site was treated before being discharged.



CWE regularly performs sampling and data review concerning effluents every year to ensure wastewater from the process fully complies with the current environmental laws and regulations and the management standards of the industrial park, so as to reduce the impact of pollution on the environment. The test results of effluents in 2022 are summarized in the table below. Since we proactively review and improve the wastewater pollution control systems in our plants, the quality of effluent discharged is currently in compliance with the standards set out in local laws and regulations.

2022 Water Discharge

Water Discharge (megaliters)				
Item		All Sites	Areas with Water Stress	
By destinations	A Surface water	266	0	
	B Groundwater	0	0	
	C Seawater	0	0	
	D Third-party water (total)	854	283	
	E Third-party water sent for use to other organizations	0	0	
Total water discharge	F=A+B+C+D+E	1,120	283	
Freshwater		0	0	
Others		1,120	283	
By level of treatment	Primary treatment	Aims to remove solid substances that settle or float on the water surface	9	0
	Secondary treatment	Aims to remove substances and materials that have remained in the water, or are dissolved or suspended in it	1,111	283

Water quality test results of Taiwan plants

Year	Item	PH	Chemical oxygen demand (COD) (mg/L)	Suspended solids (SS) (mg/L)	Cu ⁺ concentration (mg/L)	Ni ⁺ concentration (mg/L)
2020	Test results	7.6	102	<1	0.126	0.028
	Standard	6~9	280	100	2	1
	Compliance	Yes	Yes	Yes	Yes	Yes
2021	Test results	6.8	63.4	7.3	0.325	0.033
	Standard	6~9	280	100	2	1
	Compliance	Yes	Yes	Yes	Yes	Yes
2022	Test results	7.6	68.2	1.9	0.223	0.047
	Standard	6~9	280	100	2	1
	Compliance	Yes	Yes	Yes	Yes	Yes

Water quality test results of China plants

Year	Item	PH	COD (mg/L)	SS (mg/L)	Cu ⁺ concentration (mg/L)	Ni ⁺ concentration (mg/L)	
2020	Test results	Suzhou	7.22	67	20	-	-
		Chengdu	8.01	55.5	-	0.68	-
	Standard	Suzhou	6~9	500	400	-	-
		Chengdu	6~9	500	-	2	-
	Compliance	Yes	Yes	Yes	Yes	-	
2021	Test results	Suzhou	7.49	69.5	16	-	-
		Chengdu	7.25	38	-	1.39	-
	Standard	Suzhou	6~9	500	400	0.3	0.1
		Chengdu	6~9	500	-	2	-
	Compliance	Yes	Yes	Yes	Yes	Yes	
2022	Test results	Suzhou	7.9	71.5	18	-	-
		Chengdu	7.8	157	-	0.3	-
	Standard	Suzhou	6~9	500	400	0.3	0.1
		Chengdu	6~9	500	-	2	-
	Compliance	Yes	Yes	Yes	Yes	Yes	

Water quality test results of China plants

Year	Item	PH	COD (mg/L)	SS (mg/L)	Cu ⁺ concentration (mg/L)	Ni ⁺ concentration (mg/L)
2020	Test results	8.41	28.69	7.84	0.44	0.20
	Standard	5.5~9.0	200	100	1	1
	Compliance	Yes	Yes	Yes	Yes	Yes
2021	Test results	8.46	30.60	9.00	0.49	0.07
	Standard	5.5~9.0	200	100	1	1
	Compliance	Yes	Yes	Yes	Yes	Yes
2022	Test results	8.45	32.80	6.00	0.51	0.13
	Standard	5.5~9.0	200	100	1	1
	Compliance	Yes	Yes	Yes	Yes	Yes

2.4 Pollution Emission and Prevention

With the philosophy of “contributing to the community” and recognizing “the concept of limited resources on the earth” and “the importance of environmental protection”, CWE is committed to environmental protection in all aspects including business operations, products and services.

1. Adopt low-pollution raw materials and clean production, commit to environmental protection and reduce the environmental impact of our product supply chain.
2. Comply with relevant environmental laws and regulations and fulfill the environmental responsibilities of entities within the CWE Group.
3. Continuously improve and enhance environmental performance through environmental target setting, regular audits and management reviews.
4. Adopt appropriate risk control techniques to effectively reduce the risk of hazards to stakeholders, and continuously strengthen relationships with contractors and suppliers.
5. Protect natural resources through efficient use and waste reduction programs.
6. Reduce and prevent the environmental impact of harmful substances in order to protect our employees and the environment.
7. Improve production quality to reduce waste.

Waste management

Waste generated by the Company can be classified into three categories: “general industrial waste”, “hazardous industrial waste” and “waste for reuse”. Besides waste sorting, the Company reports, sorts and stores all types of waste in compliance with local regulations and engages qualified vendors to assist in the removal, disposal and recycling of waste. We ensure our waste is properly handled through regular vendor reviews and audits.

In 2022, the volume of waste generated and reused went up slightly due to the increase in production capacity. However, their percentage weightings were similar to those in 2021, demonstrating our thorough implementation of waste sorting management. The reuse volume of Taiwan plants was higher than others mainly because the waste etching solution from the etching process was recycled by suppliers to be put back into the process, which not only improved the reuse rate of waste but also promoted circular economy. In addition, our Taiwan plant received the Outstanding Enterprise Award for Recycling in 2021. We will continue to set source reduction and recycling as our management goals, aiming to lower our operating costs and environmental impact through waste reduction.

Through packaging material reduction, incentive schemes for packaging material recycling and promotion on the use of environmentally friendly as well as reusable materials, our volume of general industrial waste drops every year. Thus, even with a 6% year-over-year revenue growth in 2022, there was no significant increase in the volume of general waste. We therefore set the target of another 5% decrease in the next 3 to 5 years.

Waste treatment methods and types

Category	Treatment Method	Disposal	Type
General industrial waste	Reuse & recycling	Off-site	Scraps, waste steel belt, resin, waste lubricant
	Landfill & incineration	Off-site	Household waste, waste dry film, waste plastic mixtures
	Physico-chemical treatments	Off-site	Waste electronics components, scraps and defectives
	Biological processing	Off-site	Waste such as nightsoil or excrements
	Offshore processing	Off-site	Scraps
Hazardous industrial waste	Reuse	Off-site	Waste filter cores, filter bags, chemical waste containers, waste glass containers, iron drums
	Incineration	Off-site	Waste solutions, acetone, empty drums (plastic bags)
	Physical treatment	Off-site	Waste solutions

Statistics of waste volume

Type	2020		2021		2022	
	Volume (metric tons)	%	Volume (metric tons)	%	Volume (metric tons)	%
General industrial waste	6,805	39%	5,408	26%	5,698	28%
Hazardous industrial waste	9,953	58%	13,247	64%	12,229	61%
Subtotal of waste volume	16,758	97%	18,655	90%	17,927	89%
Waste intensity (MT/thousands of NT\$)	0.0010		0.0009		0.0008	
Waste reused	534	3%	2,075	10%	2,114	11%
Total	17,292	100%	20,730	100%	20,041	100%

Note: Waste intensity = Waste volume / Revenue

Harmonious Workplace

CWE has been devoted to the industry for many years and recognizes that talent is the cornerstone for corporate sustainability. Building the best workplace is our commitment to all employees as well as our social responsibility. We hope to grow together with employees and exert positive influence as a company and an individual.

We are committed to creating a quality work environment and treating every employee fairly. Besides complying with labor-related laws and regulations, we provide compensation packages that are superior to requirements set out in the Labor Standards Act and competitive in the market. At the same time, we believe in having the right people in the right position, encourage employees to pursue innovations, and provide challenging tasks plus personal growth opportunities. We hope that our employees can attain work-life balance as they pursue career achievements with support from the corporate system, and become the driving force for continuous improvement of CWE.

3.1 Talent Recruitment and Workforce Structure

We have always viewed our employees as our most important asset and the core of our sustainable development; therefore, we have established relevant rules and regulations to protect the rights and interests of our employees. We continuously implement employee care measures to promote the physical and mental health of employees, and seek talents of different backgrounds and expertise as well as cultivate the competence of individuals through fair recruitment and promotion systems in order to create a “win-win” work environment for employees and the Company. In accordance with the provisions of the International Labour Organization (ILO) of the United Nations and the Labor Standards Act, we do not employ child labor. Under the principle of fair and just recruitment, we do not impose any unreasonable restrictions (e.g., retention of the identification cards or passports and receipt of improper benefits), nor force or coerce unwilling individuals to perform services. During the reporting period, the Company had a total of 80 employees plus 3 non-employee workers working as janitors.

In accordance with the provisions of the International Labour Organization (ILO) of the United Nations and the Labor Standards Act, the Company does not employ child labor nor forced or compulsory workers to perform services.

Based on the basic human rights of equal employment opportunity, employees are recruited based on their professional competence and suitability. They are not treated differently based on race, ideology, religion, political affiliation, nationality, gender, marital status or disability. We also comply with relevant laws and recruit disabled employees where arrangements are made based on their abilities. There were no significant changes in the Company's operation in 2022. We would notify employees of significant operational changes 10 to 30 days in advance based on the seniority of employees in accordance with Article 16 of the Labor Standards Act.

Diversity Performance

2022 Workforce Structure

Item	Male	Female	Gender Ratio
CWE	42	38	1.11

As of the end of December 2022, the Company had a total of 80 employees.

Type	Category	2022					
		Male	% to Total	Female	% to Total	Total Employees	Total Employees %
Recruited	Regular employees	42	52%	38	48%	80	100%
	Temporary employees	0	0%	0	0%	0	0%
Contracted	Full-time employees	42	52%	38	48%	80	100%
	Part-time employees	0	0%	0	0%	0	0%
Age	Under 30	2	2%	1	1%	3	3%
	31 ~ 49	29	36%	31	39%	60	75%
	Over 50	11	14%	6	8%	17	22%
Total		42	52%	38	47%	80	100%
Ranking	Senior executives (President and CEO)	3	4%	0	0%	3	4%
	Middle managers (Assistant Manager ~ Manager)	5	6%	3	4%	8	10%
	Supervisory personnel (Secondary managers of departments)	5	6%	1	1%	6	7%
	General employees	29	36%	34	43%	63	79%
Total		42	52%	38	48%	80	100%
Function	Sales	24	30%	21	26%	45	56%
	engineering	9	11%	0	0%	9	11%
	Administration	9	11%	17	22%	26	33%
Total		42	52%	38	48%	80	100%
Education	Master's Degree	9	11%	6	8%	15	19%
	College /Bachelor's Degree	31	39%	30	38%	64	77%
	Senior High School (and below)	2	2%	2	2%	4	4%
Total		42	52%	38	48%	80	100%

New Recruits

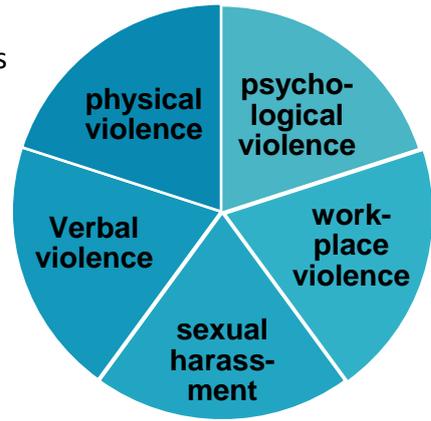
Item	Gender	2022		
		No. of New Recruits	No. of Employees	% of New Recruits
Under 30	Male	1	2	1%
	Female	0	1	0%
	Subtotal	1	3	1%
31 ~ 49	Male	2	29	3%
	Female	4	31	5%
	Subtotal	6	60	8%
Over 50	Male	0	11	0%
	Female	0	6	0%
	Subtotal	0	17	0%
Total		7	80	9%

Terminated Employees

Item	Gender	2022		
		No. of Terminated Employees	No. of Employees	Turnover rate
Under 30	Male	0	2	0%
	Female	0	1	0%
	Subtotal	0	3	0%
31 ~ 49	Male	2	29	3%
	Female	3	31	4%
	Subtotal	5	60	7%
Over 50	Male	1	11	1%
	Female	0	6	0%
	Subtotal	1	17	1%
Total		6	80	8%

Protection of Human Rights

CWE strictly complies with labor laws and regulations of countries it operates in, protects the legal rights and interests of employees, and adheres to the spirit and basic principles of human rights protection outlined in the “United Nations Global Compact”, the “United Nations Universal Declaration of Human Rights”, the “ILO Declaration on Fundamental Principles and Rights at Work” and other international human rights conventions. We treat all employees with dignity and respect.



We include our “Human Rights Policy”, “Corporate Social Responsibilities Policy”, “Statement on Prohibiting Workplace Violence in the Workplace” and “Regulations Governing the Maternal Health Protection of Female Employees” as mandatory courses for

orientation and annual education and training, so that all employees are fully aware of the importance of human rights protection, elimination of all forms of discrimination against women, and prevention of workplace violence and sexual harassment.

In addition, employees who encounter problems

concerning workplace safety and health, gender equality, and workplace violence at work can raise issues through our reporting channel where problems would be handled confidentially by dedicated personnel.

Maternal health protection measures

Protection measures

- Parking for pregnant women
- Breastfeeding room setting

Protection range

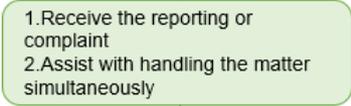
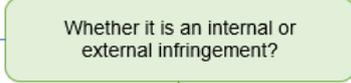
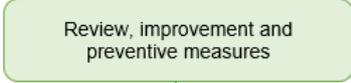
- Labor during pregnancy and within 1 year after delivery or still breastfeeding

Breastfeeding room setting

- Breastfeeding time of 1 hour per day



Reporting Process for Unlawful Infringement at Workplace

In-charge Department /Personnel	Management Process	Description
Employees Departments		<ol style="list-style-type: none"> 1. Informed by employees on their own initiative Departments 2. Reported, complained or raised by others
Administration Dept.		<ol style="list-style-type: none"> 1. Interview, hazard identification and risk assessment by occupational safety personnel, human resources unit, and the employees involved (and other relevant and appropriate personnel) 2. For internal incident, labor representatives shall be involved in the investigation 3. For external incident, the local police or relevant authorities shall be contacted
Employees Administration Dept. Human Resources Unit Department Heads	 <p>Internal violence: Human resources unit or department head would Intervene</p> <p>External violence: Local police or relevant</p>	<ol style="list-style-type: none"> 1. Employer may make timely referrals or arrangements for consultation, counseling, leave of absence, or flexible adjustments of work duties, working hours, etc. 2. Medical resources may be employed, such as follow-up by appropriate personnel, or referrals to local occupational disease and injury prevention centers 3. Implement internal disciplinary procedures when needed 4. Assist with subsequent legal actions when needed 5. Timely work adjustment for the two parties involved when needed
Administration Dept. Department Heads Human Resources Unit	   	<p>The in-charge departments shall properly retain relevant records of their respective departments</p>

3.2 Employee Benefits

The Company attaches great importance to employee compensation and benefits, and provides protections above the regulatory requirements. Employee salaries are not determined based on gender. Our employee benefits include base salary, allowances, bonuses, pensions and insurances. We design compensation packages based on education, work experience and market surveys for them to stay competitive, and consider the Company's overall operation, individual performance, the Consumer Price Index (CPI) and government policies for salary adjustments.

There is a performance evaluation every year and we recognize, award and motivate employees with outstanding performance through effective incentive programs. In 2022, except for new hires, the percentage of employees who underwent performance evaluation was 100%.

In addition, we provide special leave, half-pay sick leave, personal leave, marital leave, injury leave, and family care leave by law. In order to build a harmonious workplace with equality, female employees are entitled to menstrual leave, prenatal appointment leave and maternity leave while married employees are entitled to paternity leave. Employees with family needs can apply for parental leave and leave without pay and be reinstated afterwards.

We expected our employees to unleash their maximum potential under a fair compensation and performance evaluation system in 2022.

Employee benefit expenses amounted to NT\$355,746 thousand in 2022, up 15% from the previous year.

Comparison of the Number of Full-time Non-managerial Employees and Their Average Salaries.

Item/Year	2022	2021	Changes (%)	2020	Changes (%)
No. of employees	69	67	3%	66	2%
Average salary	2,097	1,981	6%	1,404	41%
Median salary	1,325	1,312	1%	992	32%

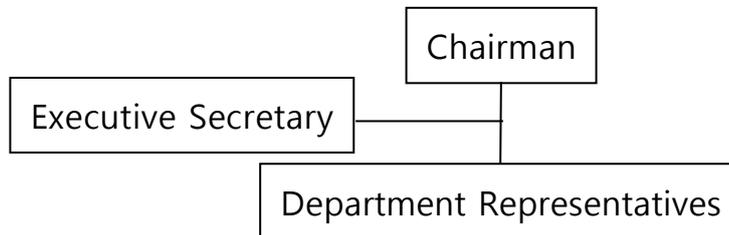
Note: The number of employees in this table excludes managers of the Company and the salary information contains only salaries of full-time non-managerial employees of listed companies in Taiwan. The term "manager" is as defined in the Official Letter No. Taiwan-Finance-Securities-III-920001301 issued by the competent authority on March 27, 2003. It is consistent with the scope of managers disclosed in the Company's annual report.

Year	2022	
	Female	Male
Average salary ratio of female to male in non-managerial position	1.2	1
Average salary ratio of female to male in supervisory position (Secondary managers of departments)	0.2	1
Average salary ratio of female to male in middle management position (Assistant Manager ~ Manager)	0.6	1
Average salary ratio of female to male in senior executive position (President and CEO)	0	1

Note: Ratios in this table represent information of employees of listed companies in Taiwan only.

The Company has organized labor-management meetings by law and they are to be held at least

once every quarter. Besides labor issues submitted by different units in accordance with the law, the meeting also appoints representatives from both parties to solicit employee proposals. Through these meetings, opinions of both the management and workers are fully communicated and negotiated. There were no labor disputes in 2022.



We have established the Employee Welfare Committee in accordance with local laws and regulations and allocated welfare funds accordingly. Each site has instructed relevant units to plan and implement welfare policies set out below :

Item	Description
Employee insurance	In addition to labor, health and pension insurances pursuant to local laws and regulations, employees are covered by group insurance.
Employee bonuses	In accordance with the Company's Articles of Incorporation, employee bonus shall be 1% of the Company's profit for the year.
Employee compensation plan	In line with our corporate planning, employees are entitled to shares reserved from cash capital increase for employee stock purchase plans, transfer of treasury shares to employees, employee stock options and restricted shares.
Employee benefit plan	In order to enhance welfare, motivate employees to engage in financial planning, and strengthen employee engagement, thereby delivering win-win solutions for management and employees, we initiated employee share ownership trust in 2020, allowing employees to own shares of the Group. The Company matches 100% of employee contributions. Employees are entitled to receive annual dividends and full redemption of shares after five years.
Group activities	Employee dinner and fun challenges are organized regularly.
Cash gifts	Cash gifts for major festivals and subsidies for weddings, funerals, etc.
Employee health check-ups	We arrange annual health check-ups for employees.

3.3 Employee Health Promotion

Establish the “jogging club” for employee health

In order to create a healthy workplace for the physical and mental well-being of employees, CWE has established the jogging club in 2020. A one-hour road running session is arranged at the Nanzih Campus of National Kaohsiung University of Science and Technology for two evenings every week. Participants can thus enjoy running or brisk walking in a safe environment.

CWE also participated in road races hosted with external organizations in 2022 and set up rest areas reserved for our employees with sufficient supplies to safeguard their physical condition. In 2022, there were about 10 employees took part in road races of over 10 kilometers.

Workplace Health Promotion

The Company provides health check-ups at a frequency higher than the regulatory requirements. The annual employee health check-ups include general and advanced ones in order to protect and understand the health status of our employees. The results of health check-ups are explained in detail by physicians. We provide relevant health education and consulting services to safeguard employee health and prevent occupational diseases.

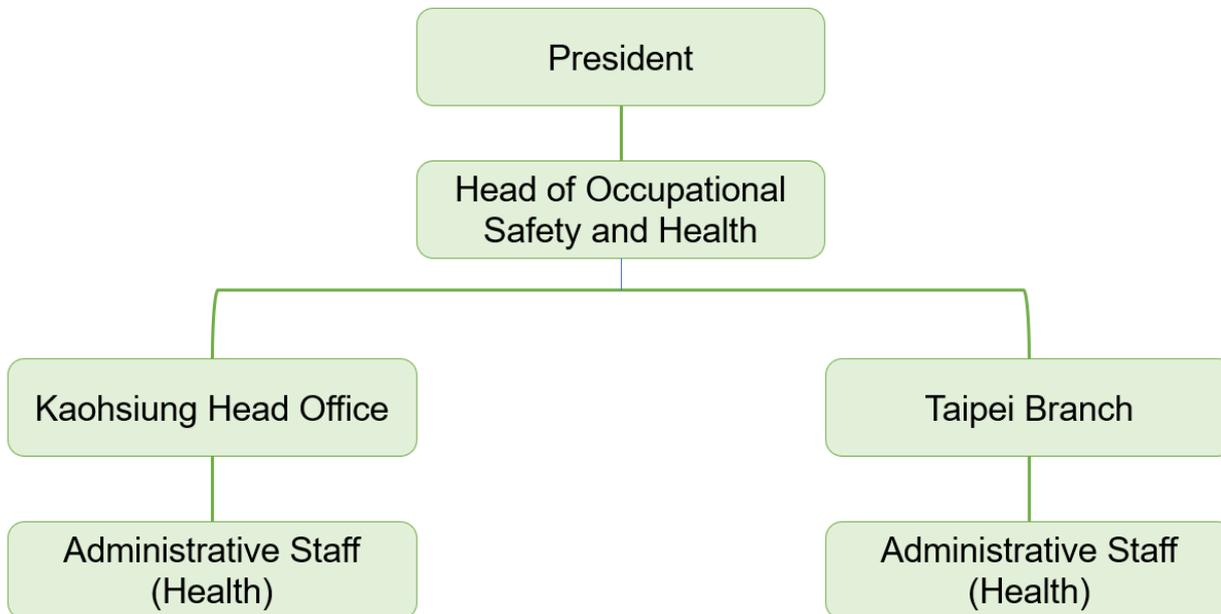
Year	No. of Participants in Health Check-ups
2020	71
2021	39
2022	69

Digitalization of Pandemic Control Management

In April 2022, the number of confirmed cases in Taiwan rose along with the number of people identified as in contact with these confirmed cases. For effective pandemic control management, CWE had in place the mechanism of daily reporting of confirmed cases, follow-up reports concerning the confirmed cases, a one-click system to identify possible contacts, and daily reporting on the trend of confirmed cases for the management team to stay informed of the personnel movement in order to secure the continuous operation of the Company.

3.4 Occupational Safety and Health

Occupational Safety and Health (OSH) Management System



Our OSH management system covers a total of 83 persons, including 80 employee and 3 non-employee workers, with an employee coverage rate of 100%.

OSH Management

According to the Occupational Safety and Health Act, the Company belongs to the low OSH-risk industry and therefore does not have to establish an OSH management system at present. We execute safety and health measures for all employees, activities and works pursuant to the Regulations of Occupational Safety and Health Management of the Ministry of Labor, and assign the Administration Department to maintain the OSH of our employees.

In order to ensure the work safety of employees, we have set out OSH rules within our work rules as references for OSH operations at workplace, thereby minimizing the occurrence of occupational accidents. In the event of commuting or occupational accidents, employees may apply for compensation in accordance with our work rules and regulations. They are also entitled to claims from accident insurance and hospitalization insurance covered by the free group insurance of the Company. Through identifying potential safety risks at workplace, we actively prevent or compensate for adverse effects of these risks on employees, and provide adequate education and training for employees to have sound awareness of occupational safety in order to protect their safety and health.

Item	Management Controls	Actions Taken
<p>Employee traffic accident</p> 	<ul style="list-style-type: none"> ● Promote public transportation ● Establish a real-time internal reporting mechanism 	<ul style="list-style-type: none"> ● Leaves and work injury reporting ● Assist employees with insurance claims ● Follow-up reports on employee health
<p>Workplace accident</p> 	<ul style="list-style-type: none"> ● Periodic equipment maintenance ● Carry out fire safety inspections according to legal regulations ● Conduct disaster and emergency drills ● Establish a real-time internal reporting mechanism 	<ul style="list-style-type: none"> ● Equipment troubleshooting ● Office building emergency evacuation ● Activate the real-time internal reporting mechanism to verify the safety of employees

CWE established the “Employee Complaint Procedure” and set up the “Employee Complaint Section” on the employee website as a convenient whistleblowing channel. We encourage employees to report all violations of ethics or laws, assign appropriate personnel to manage the cases in a confidential manner and are committed to protect the information and safety of whistleblower. Employees may also communicate directly with the contact for the reporting of unethical business behavior (i.e., the audit officer). The reward system is implemented in conformity with the payroll and personnel cycle - personnel reward and punishment procedures as well as the employee reward and punishment rules.

Promotion of OSH

1. Employee health check-ups

The Company arranges free health check-ups every year for employees to be aware of their health status and feel reassured at workplace.

2. Training courses

- (1) Internal training: Regularly promote disaster education and training, education on firefighting knowledge and facilities, etc. every year in order to reduce the occurrence of occupational accidents. Conduct safety campaigns to enhance employees’ awareness of occupational safety as well as draw their attention to safety and health, disaster prevention, labor laws and regulations and the importance of workplace safety.
- (2) External training: Enhance the safety and health knowledge of employees and strengthen the prevention of occupational accidents through on-the-job training.

Workplace Safety Training		
2022 Workplace Safety Training	Total Training Hours	No. of Participants
Promotion of accident prevention	480	60
General safety and health training	200	18

Occupational Accidents Management

In 2022, the Company had no occupational injury nor fatal occupational accident. An accident report is required for each incident, investigating the direct/indirect/root causes of the accident. In addition to education, training and SOP review, we also need to examine the soundness of risk assessments for the operations. After exploring the true cause of each occupational accident, we would adopt appropriate improvement measures and apply them to similar work environments/types to minimize the hazards and effectively prevent the recurrence of the same type of accidents.

Occupational Accidents Analysis

Occupational Accidents			
2022	Male	Female	Total
Total working days	10,416	9,275	19,691
Total working hours	83,328	74,200	157,528
No. of occupational fatalities	0	0	0
Occupational fatality rate	0	0	0
No. of severe occupational injuries	0	0	0
Rate of severe occupational injury	0	0	0
No. of recordable occupational injuries	0	0	0
Rate of recordable occupational injury	0	0	0

Note1. Severe occupational injuries are ones where employees cannot or hard to return to their pre-injury state of health within six months.

Note2. Rate of recordable occupational injury = (No. of recordable occupational injuries / Total working hours) × 1,000,000.

To avoid concealment in reporting, we encourage departments to identify safety concerns in their daily operations. Once unsafe conditions are discovered by observing employees' work behaviors, we would follow up with safety proposals for improvement. False alarms are included in the reporting procedures where improvement measures are implemented before injuries occur to eliminate the possibility of next accident.

Social Care

Besides business performance, the success of a company is demonstrated through its care for and dedication to the society. We have extended the concept of “commitment”, one of our business philosophies, to social contributions. Through goods donations and actions, we create a caring and altruistic community. The Group believes that it is more blessed to give than to receive, and that everyone has an altruistic tendency. Therefore, we take active steps in producing social engagement culture and opportunities aiming at convenient sharing, and gradually invite neighboring communities and industry partners to take part in relevant events. We not only set an example as a company but also build a friendly channel to achieve common good for internal and external partners who are willing to participate in social care.

4.1 Welfare Activities

As a member of the society, companies and their stakeholders including investors, employees, and local communities are interdependent on each other. CWE Group leads by example and exerts its influence on social responsibility. We work with local groups at our operating sites to ensure resources are allocated to the truly needy people. Our participation in public welfare centers around the three themes of sports and health, charity, and humanity and art.

Event	Recipient	Amount
Support Local Quality Fruit Farmers	Agricultural Technology Research Institute	151,200
Sponsor Taiwan Ballet Company's Taitung tour	Taiwan Ballet Company	150,000
CWE Group's First Title Sponsorship of the TPGA Challenge	The PGA of Taiwan	2,000,000
Sponsor the Pingtung gymnastics team	Gymnastics Committee, Pingtung County Sports Association	150,000
CWE Group Donates a Self-service Payment Kiosk	The Kaohsiung Municipal United Hospital	840,000
Sponsor professional golf player, Miss Zhi-Yun Wu	Miss Zhi-Yun Wu	300,000
Total		3,591,200

CWE Group Donates a Self-service Payment Kiosk to the Kaohsiung Municipal United Hospital

As the former self-service payment kiosk in the Kaohsiung Municipal United Hospital had been



outdated and was therefore slow in processing payments and prone to malfunction, and there was only a limited number of cashier counters, the hospital was in dire need to acquire a more functional self-service kiosk to avoid long waiting time. CWE Group donated a kiosk of the new model equipped with a large capacity and high compatibility, allowing

diverse payment options for convenience. Users can make payments with instruments including credit card and iPass card besides cash. The new model was well received by the public, saving patients a lot of time. Being committed to the philosophy of “contributing to the society for support received,” CWE continues to make contributions to the society. In recent years especially, health workers have stood on the frontline during the Covid-19 outbreak. CWE Group would like to take this opportunity to thank them for their hard work and dedication.

Sports and Health

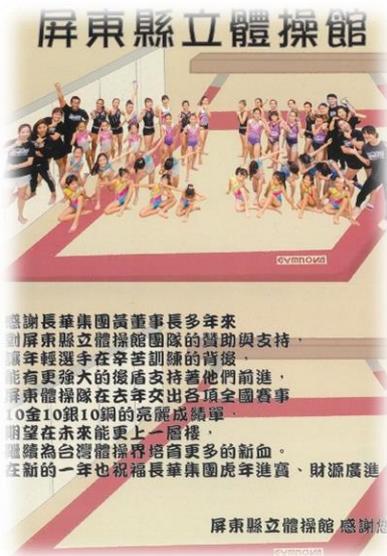
Promote and Support Golf Tournaments

In order to promote golf events in Taiwan · Chang Wah Electromaterials Inc. teams up with Chang Wah Technology Co., Ltd. and JMC Electronics Co., Ltd. to sponsor the Chau-Shi Series, one of the Professional Golfers' Association of Taiwan (TPGA) tours, in the name of the CWE Group between 2022 and 2024. The TPGA Tour kicked off its 2022 season with the Chang Wah Open at Hsin Yi Golf Club in Kaohsiung from March 23 to 26.

In addition, CWE sponsors Taiwan Ladies Professional Golf Association (LPGA) player Zhi-Yun Wu for the high cost of domestic and international tournaments. We provide resources and assistance so that the player can focus on skill enhancement and work toward



her dreams with the hope of delivering excellent performance in future competitions. For social contributions and promotion of sports, CWE Group has supported domestic sports developments in recent years. CWE Group wishes to raise social awareness of sports and encourage the cultivation of sports talents in Taiwan through the power and influence of enterprises in order for more outstanding athletes to thrive on the world stage of golf.



Sponsor the Pingtung gymnastics team

CWE Group establishes a strong foothold in grassroots sports activities by sponsoring the Gymnastics Committee of the Pingtung County Sports Association and diversifies into gymnastics. The sponsorship allows athletes to focus on skill training without financial concerns, stay undeterred from their goals, and bravely pursue their dreams. The Pingtung Gymnastics Team had delivered impressive performances in various national competitions during the year and the Pingtung Gymnastics Center had sent a letter of appreciation to the CWE Group. We are honored to be a part of their achievements.

Charity

Support the 1919 Food Bank

Taipei Exchange (TPEX) hosted the donation ceremony for the "Support from TPEX Companies to 1919 Food Bank", bringing together companies listed on the Taipei Exchange, the mainboard and the emerging stock board to help the economically disadvantaged families as well as families in distress. CWE Group was also invited to attend the ceremony and presented cash and donated goods to the Chinese Christian Relief Association on behalf of the TPEX. CWE Group would strive to help the disadvantaged when the opportunity presents itself.



Support Local Pomelo Farmers with Actions

CWE Group ordered 252 boxes of pomelo from the Agricultural Technology Research Institute as gifts for Group employees. In addition to relieving pomelo farmers from the pressure of oversupply as part of the corporate social responsibility.



Humanity and Art

Sponsor Taiwan Ballet Company's Taitung tour

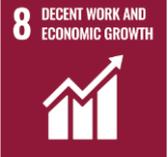
Taiwan Ballet Company organizes a tour to nine junior high and elementary schools at remote areas in Taitung and Lanyu from May 9 to 13, 2022 for children to appreciate art and culture through ballet, which is an art combining music and dance. CWE Group helped the Taiwan Ballet Company to spread the seeds of art and cultural appreciation through "dancing" in Taitung for them to take root and blossom across Taiwan.



SDGs Core Objectives

SDGs Core Objectives	Corresponding Issues	Achievements
 <p>1 NO POVERTY</p>	<p>To achieve the goal of “no poverty”, the government starts with strengthening the safety and care for the disadvantaged groups in the society. It provides support and social emergency assistance to the economically disadvantaged individuals, the elders and children, and the disaster-stricken communities as well as offers stable living arrangements and job security for all citizens, including the disadvantaged groups.</p>	<p>4.1 Welfare Activities</p> <ul style="list-style-type: none"> ◆ Assisted farmers with promotions and purchased agricultural produce failed to be sold due to the pandemic. ◆ Joined TPEX in supporting the non-profit organization - 1919 Food Bank.
 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>For the goal of “good health and well-being”, the government increases the health insurance coverage for citizens of all ages and enhances responses to safety and health hazards for health risk management.</p>	<p>3.3 Employee Health Promotion</p> <p>There are regular employee health check-ups every year in order to protect and understand the health status of our employees. We provide relevant health education and consulting services when needed to safeguard employee health and prevent occupational diseases.</p>
 <p>5 GENDER EQUALITY</p>	<p>The goal of “gender equality” promotes gender mainstreaming and a balanced sex ratio at birth. In view of the persistent gender disadvantage for women, the focus has been placed on protecting women against partner violence and sexual assault,</p>	<p>3.1 Talent recruitment and workforce structure 3.2 Employee benefits</p> <ul style="list-style-type: none"> ◆ Female employees accounted for approximately 48% of all employees in 2022. ◆ The gender pay gap was about 20% in 2022. ◆ We create a gender-friendly workplace with the provision of maternity allowance, breastfeeding room, breastfeeding time, Parking space for pregnant

SDGs Core Objectives	Corresponding Issues	Achievements
	eliminating the gap in unpaid domestic and family care for married women and encouraging women to take up managerial positions.	women.
 <p>6 CLEAN WATER AND SANITATION</p>	<p>The goal of “clean water and sanitation” covers two aspects: environmental quality and resource governance. It includes water resource management, air pollution control, waste and resource recycling, soil remediation, and environmental sanitation and requires public participation.</p>	<p>2.3 Water resources management 2.4 Pollution emission and prevention</p> <ul style="list-style-type: none"> ◆The discharge of wastewater is controlled by each site to comply with local regulations. There have been no environmental violations. ◆With conservation measures such as water recycling systems within the plants and water-saving design of machinery and equipment, the water recycling rate increased by 6% every year from 32% in 2021 to 38% in 2022. ◆The volume of waste recycled amounted to 2,114 metric tons in 2022, nearly four times the volume in 2020.
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>The goal of “affordable and clean energy” focuses on ensuring everyone can enjoy affordable, stable, sustainable and modern energy; continuously refining modern and sustainable energy services; promoting energy and carbon-reducing energy systems; and increasing the proportion of clean electricity, e.g., renewable energy and gas.</p>	<p>2.2 Energy management</p> <ul style="list-style-type: none"> ◆Installed capacity of rooftop solar system increased by about 6,230kWp in 2020, and the cumulative capacity of rooftop solar system was 6,239kWp in 2022. ◆ The electricity intensity in 2022 was 3.55 kWh/thousands of NT dollars in 2022, an 1% reduction compared to 2021.

SDGs Core Objectives	Corresponding Issues	Achievements
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>The goal of “decent work and economic growth” is twofold: “quality employment” aims to enhance labor productivity, strengthen youth employability, and promote gender equality and safety at workplace while “economic growth” aims to encourage and assist industries with investing in quality green economy and innovation developments through promoting the Internet of Things, digital economy, and financing assistance and thereby builds inclusive and sustainable economic strength.</p>	<p>3. Harmonious workplace</p> <ul style="list-style-type: none"> ◆ Employment equality, respect for human rights, employee diversity, and prohibition of child labor and forced labor are incorporated into our recruitment principles and processes. ◆ Employees are entitled to appropriate salary packages and fair promotion opportunities regardless of gender, disability and any other factors.
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>The goal of “responsible consumption and production” is to master the use of materials and resource recycling, advocate the concept of cradle-to-cradle design, drive circular agriculture and develop sustainable tourism, thereby promoting green economy and securing sustainable consumption and production.</p>	<p>2.1 Environmentally sustainable development</p> <ul style="list-style-type: none"> ◆ We adopt the latest version of ISO14001:2015 environmental management system and obtain relevant certifications.
 <p>13 CLIMATE ACTION</p>	<p>The “climate change” goal focuses on completing the mitigation and adaptation actions, which include to improve climate change adaptation capabilities,</p>	<p>3.4 Occupational safety and health</p> <ul style="list-style-type: none"> ◆ No major disasters occurred at our Taiwan plants in 2022. ◆ There are disaster prevention drills and education every year.

SDGs Core Objectives		Corresponding Issues	Achievements
	to strengthen resilience and reduce vulnerability, to execute greenhouse gas (GHG) control targets, and to enhance climate change and sustainability education as well as public awareness, in order to cope with climate change and its impacts.		
	The goal of “peace, justice and strong institutions” aims at shaping a peaceful and diverse society, strengthening the social safety net and child protection, ensuring equal justice, and building a credible and inclusive system through transparent government data and online public participation.	<p>1. Governance and Sustainable Management</p> <p>3.1 Talent recruitment and workforce structure</p>	<ul style="list-style-type: none"> ◆We have a zero-tolerance policy for any non-compliant behaviors or activities and strictly prohibit corruption, bribery, embezzlement of public funds and other improper gains. ◆In accordance with the provisions of the International Labour Organization (ILO) of the United Nations and the Labor Standards Act, we do not employ child labor , nor force or coerce unwilling individuals to perform services. ◆A stakeholder mailbox is available as a channel for soliciting opinions and reporting of improper interests. ◆CWE’s existing suppliers and contractors did not impose any significant negative impacts, either actual or expected, on the environment, labor conditions, human rights, and society in 2022.

Appendix

Comparison Table of GRI Standards

Statement of use		Chang Wah Electromaterials Inc. has prepared this report in accordance with the GRI Standards for the period from January 1, 2022 to December 31, 2022.			
GRI 1 used		GRI 1: Foundation 2021			
Applicable Standards	GRI Sector	None			
GRI Standard	No.	Disclosure Titles	Corresponding Chapter	Page	Note
General Disclosures					
GRI 2 General Disclosures 2021	2-1	Organizational details	1.1 Company profile	5	
	2-2	Entities included in the organization's sustainability reporting	1.1 Company profile	5	
	2-3	Reporting period, frequency and contact point	About Our Report	2	
	2-4	Restatements of information	Not applicable		
	2-5	External assurance	About Our Report	2	
	2-6	Activities, value chain and other business relationships	1.1 Company profile	5	
	2-7	Employees	3.1 Talent recruitment and workforce structure	51	
	2-8	Workers who are not employees	3.1 Talent recruitment and workforce structure	51	
	2-9	Governance structure and composition	1.2 Corporate governance	9	
	2-10	Nomination and selection of the highest governance body	1.2 Corporate governance	9	
	2-11	Chair of the highest governance body	1.2 Corporate governance	9	
	2-12	Role of the highest governance body in overseeing the management of impacts	1.2 Corporate governance	9	
	2-13	Delegation of responsibility for managing impacts	1.2 Corporate governance	9	
	2-14	Role of the highest governance body in sustainability reporting	1.2 Corporate governance	9	
	2-15	Conflicts of interest	1.2 Corporate governance	9	
	2-16	Communication of critical concerns	1.2 Corporate governance	9	
	2-17	Collective knowledge of the highest governance body	1.2 Corporate governance	9	
	2-18	Evaluation of the performance of the highest	1.2 Corporate governance	9	

		governance body			
	2-19	Remuneration policies	1.2 Corporate governance	9	
	2-20	Process to determine remuneration	1.2 Corporate governance	9	
	2-21	Annual total compensation ratio	1.2 Corporate governance	9	
	2-22	Statement on sustainable development strategy	Letter from the Chairman	3	
	2-23	Policy commitments (Environmental Policy)	1.4 Risk management	27	
	2-24	Embedding policy commitments	3.4 Occupational safety and health	59	
	2-25	Processes to remediate negative impacts	1.2 Corporate governance	9	
	2-26	Mechanisms for seeking advice and raising concerns	1.2 Corporate governance	9	
	2-27	Compliance with laws and regulations	1.2 Corporate governance	9	
	2-28	Membership associations	1.2 Corporate governance	9	
	2-29	Approach to stakeholder engagement	1.6 Stakeholders	33	
	2-30	Collective bargaining agreements	1.2 Corporate governance	9	
Material Topics					
GRI 3 : Material Topics 2021	3-1	Process to determine material topics	1.6 Stakeholders	33	
	3-2	List of material topics	1.6 Stakeholders	33	
	3-3	Management of material topics	All chapters		
Economic Performance					
GRI 201 Economic Performance 2016	GRI 201-1	Direct economic value generated and distributed	1.3 Business performance	24	
	GRI 201-2	Financial implications and other risks and opportunities due to climate change	1.4 Risk management	27	
	GRI 201-3	Defined benefit plan obligations and other retirement plans	3.2 Employee benefits	56	
	GRI 201-4	Financial assistance received from government	1.3 Business performance	24	
Energy					
GRI 302 Energy 2016	GRI 302-1	Energy consumption within the organization	2.2 Energy management	38	
	GRI 302-3	Energy intensity	2.2 Energy management	38	
Water and Effluents					
GRI 303 Water and Effluents 2018	GRI 303-1	Interactions with water as a shared resource	2.3 Water resources management	42	
	GRI 303-2	Management of water discharge-related impacts	2.3 Water resources	42	

			management		
	GRI 303-3	Water withdrawal	2.3 Water resources management	42	
	GRI 303-4	Water discharge	2.3 Water resources management	42	
	GRI 303-5	Water consumption	2.3 Water resources management	42	
Emissions					
GRI 305 Emissions 2016	GRI 305-1	Direct (Scope 1) GHG emissions	2.2 Energy management	38	
	GRI 305-2	Energy indirect (Scope 2) GHG emissions	2.2 Energy management	38	
	GRI 305-3	Other indirect (Scope 3) GHG emissions	2.2 Energy management	38	
	GRI 305-4	GHG emissions intensity	2.2 Energy management	38	
	GRI 305-5	Reduction of GHG emissions	2.2 Energy management	38	
Sewage and Waste					
GRI 306 Waste 2020	GRI 306-1	Waste generation and significant waste-related impacts	2.4 Pollution emission and prevention	49	
	GRI 306-2	Management of significant waste-related impacts	2.4 Pollution emission and prevention	49	
	GRI 306-3	Waste generated	2.4 Pollution emission and prevention	49	
Employment					
GRI 401 Employment 2016	GRI 401-1	New employee hires and employee turnover	3.1 Talent recruitment and workforce structure	51	
	GRI 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	3.2 Employee benefits	56	
	GRI 401-3	Parental leave	3.2 Employee benefits	56	
Labor/Management Relations					
GRI 402 Labor/Management Relations 2016	GRI 402-1	Minimum notice periods regarding operational changes	3.1 Talent recruitment and workforce structure	51	
Occupational Health and Safety					
	GRI	Occupational health and	3.4 Occupational	59	

GRI 403 Occupational Health and Safety 2018	403-1	safety management system	safety and health		
	GRI 403-2	Hazard identification, risk assessment, and incident investigation	3.4 Occupational safety and health	59	
	GRI 403-5	Worker training on occupational health and safety	3.4 Occupational safety and health	59	
	GRI 403-8	Workers covered by an occupational health and safety management system	3.4 Occupational safety and health	59	
	GRI 403-9	Work-related injuries	3.4 Occupational safety and health	59	
Diversity and Equal Opportunity					
GRI 405 Diversity and Equal Opportunity 2016	GRI 405-1	Diversity of governance bodies and employees	3.1 Talent recruitment and workforce structure	51	
	GRI 405-2	Ratio of basic salary and remuneration of women to men	3.2 Employee benefits	56	
Supplier Social Assessment					
GRI 414 Supplier Social Assessment 2016	GRI 414-2	Negative social impacts in the supply chain and actions taken	1.5 Supplier sustainability management	32	
Local Communities					
GRI 413 Local Communities 2016	GRI 413-1	Operations with local community engagement, impact assessments, and development programs	4.1 Welfare Activities	62	
Customer Privacy					
GRI 418 Customer Privacy 2016	GRI 418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	1.4 Risk management	27	

Comparison Table of SASB Standards

(Semiconductor industry)

Topic	Code	Metric	Corresponding Chapter	Page	Note
GHG Emissions	TC-SC-19a.1	(1) Gross global Scope 1 emissions and (2) amount of total emissions from perfluorinated compounds	2.2 Energy management	38	
	TC-SC-19a.2	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	2.2 Energy management	38	
Energy Management in Manufacturing	TC-SC-130a.1	(1) Total energy consumed, (2) percentage of grid electricity and (3) percentage of renewable	2.2 Energy management	38	
Water Management	TC-SC-140a.1	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with water stress	2.3 Water resources management	42	
Waste Management	TC-SC-150a.1	Amount of hazardous waste from manufacturing, percentage recycled	2.4 Pollution Emission and Prevention	49	
Employee Health & Safety	TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	3.4 Occupational safety and health	59	
	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	3.4 Occupational safety and health	59	
Recruiting & Managing a Global & Skilled Workforce	TC-SC-330a.1	Percentage of employees that are (1) foreign nationals and (2) located offshore	3.1 Talent recruitment and workforce structure	51	
Intellectual Property Protection & Competitive Behavior	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behaviors	In 2022, CWE did not incur any monetary losses as a result of legal proceedings associated with anti-competitive behaviors.		

Topic	Code	Metric	Corresponding Chapter	Page	Note
Total production	TC-SC-000.A	Varies by product type	Total production is disclosed in the Company's annual reports. Please refer to the annual report for details. Total production in 2022 : EME 14,349t Lead Frame 134,932KKPCS Substrate 985 KKPCS Total production in 2021 : EME 15,720t Lead Frame 152,820KKPCS Substrate 1,490 KKPCS		
Percentage of production from owned facilities	TC-SC-000.B	Percentage (90%)	CWE is an electronic components distributor, and our subsidiary is a professional lead frame manufacturer with 90% of its production coming from its own facilities.		

Sustainability Disclosure Indicators

No.	Indicator	Category	Annual Disclosure	Unit of Measurement	Note
1	Total energy consumption, percentage of purchased electricity and renewable energy usage	Quantitative	Total energy consumption: 302,139 GJ Percentage of purchased power: 93% Renewable energy use rate: 0%	GJ · %	
2	Total water withdrawal and total water consumption	Quantitative	Total water withdrawal: 1,324 m3 Total water consumption: 706 m3	m3	
3	Weight of hazardous waste generated and percentage of recovery	Quantitative	Hazardous waste: 12,229t Recovery percentage: 11%	MT · %	
4	Type, number and percentage of occupational disasters	Quantitative	Occupational fatality rate: 0% Rate of severe occupational injuries: 0% Rate of recordable occupational injury: 0%	% · Quantity	
5	Product lifecycle management disclosure: including the weight of scrapped products and electronic waste and the percentage of recycling (Note 1)	Quantitative	Hazardous waste: 12,229 MT Reuse of waste: 2,114 MT Recycled rate: 11%	MT · %	
6	Description of risk management related to the use of critical materials	Qualitative description	CWE does not use conflict minerals in the manufacturing process and conducts supply chain due diligence concerning conflict minerals to ensure 90% of its products contain minerals from conflict areas.	Not applicable	

No.	Indicator	Category	Annual Disclosure	Unit of Measurement	Note
7	Total monetary loss resulting from legal proceedings related to anti-competitive regulations	Quantitative	In 2022, CWE did not incur any monetary losses as a result of legal proceedings associated with anti-competitive regulations.	Reporting currency	
8	Production volume of major product by category	Quantitative	EME14,349t Lead Frame134,932KKPCS Substrate 985 KKPCS	KKPCS · MT	

Note 1: Including the sale of scraps or other recycling treatments. Details shall be provided.

External Assurance Statement

ISO 14064 1:2018



Independent Assurance Opinion

Statement No.:
CS05685-2022-AG-TWM-DNV

Issued date:
19 June, 2023

Page 1 of 2

This is to verify Initiate reporting of Greenhouse Gas Inventory Management Report (2022) of

Chang Wah Technology Co., Ltd.

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Chang Wah Technology Co., Ltd. (hereafter the "Organization") to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2022) (hereafter the "Inventory Report") in Taiwan, ROC with respect to the sites listed in Appendix A.

The Reporting Boundary for the verification including direct GHG emissions and removals, indirect GHG emissions from imported energy, indirect GHG emissions from transportation, and indirect GHG emissions from products used by the Organization. The further descriptions for the Reporting Boundary listed in Appendix B.

Verification Criteria and GHG Programme

The verification was performed on the basis of ISO 14064-1:2018 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2011, ISO 14065:2020, ISO14064-3:2019.

Verification Statement

It is DNV's opinion that the Inventory Report (2022), which was published on June 12, 2023 (Ver. 4), is free from material discrepancies in accordance with the verification criteria identified as stated above. The opinion is decided based on the following approaches,

- For the Direct (Category 1) and Indirect GHG emissions from imported energy (Category 2), the reliability of the information within the Inventory Report (2022) were verified with reasonable level of assurance.
- For the other indirect GHG emissions, the involved information was tested using agreed-upon procedures, AUP, defined in Inventory Report.

Sophie Kim
GHG Verifier

Place and date:
Taipei, 19 June, 2023

For the issuing office:
DNV Business Assurance Co., Ltd.
29FL, No. 293, Sec. 2, Wenhua Rd.,
Banqiao District, New Taipei City 220,
Taiwan

Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion.
立昇資訊國際股份有限公司, 新北市板橋區文化路二段 293 號 29 樓, TEL : +886-2-82537800, website:www.dnv.com/tw
DNV 23K7W-04-P56, Rev.02, 2023-2



Statement No.: C605686-2022-AG-TWN-DNV
Place and date: Taipei, 19 June, 2023

Page 2 of 2

Supplement to Statement

Process and Methodology

The reviews of the Inventory Report and relevant documents, and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

Quantification of Greenhouse Gas Emission

The Inventory Report covering the period 1st January to 31st December, 2022, it is DNV's opinion that relevant GHG emissions and removals identified within the Reporting Boundary has been included in the Inventory Report as claimed in accordance with the verification criteria identified as stated above, and results in quantification of GHG emissions that are real, transparent and measurable.

Organizational Boundary of Verification

Financial Management Control Operational Management Control Equity Share

GHGs Verified

CO₂ CH₄ N₂O HFCs PFCs SF₆ NF₃

The Quantification of GHG emissions and removals in Direct and Indirect Emission Source: Tonnes CO₂ e

Category	BU1	BU2	Total
Direct Emissions	15.8192	551.9963	567.8155
Imported Energy Indirect Emissions	2,266.4284	12,223.7343	14,490.1627
Indirect GHG emissions from transportation	58.0501	1,069.9965	1,128.0466
Indirect GHG emissions from products used by organization	677.4196	7,227.6136	7,905.0332

*: Unless other indicated, the Indirect Emissions was calculated based on 2021 electricity emission factor of 0.509 kg CO₂-e/kwh, which was announced by Bureau of Energy, Ministry of Economic Affairs. The Global Warming Potential (GWP) defined in IPCC AR6 (2023) has been choose and correctly referred by the Organization.

** : The details subcategory of each category could be refer later in the Report.

Verification Opinion

unmodified
 modified
 adverse