

CTCI Corporation

13th Taiwan CEO Week & Taiwan New Economy Day

2023.04.25~27



Disclaimer

- The consolidated financial statement is hereby based on International Financial Reporting Standards (IFRS) and reviewed/audited by CPA.
- This presentation may include forward-looking statements with respect to the operations and business of the company other than the historical results. The actual results may differ from those indicated forward-looking statements due to unknown risks and uncertainties. Investors should make their own judgement and control the investment risk.

Agenda

- Company Overview
- Operation Review
- Summary of Financial Highlights
- Business Outlook

Company Overview

Company Profile

History

1979 – CTCI Corporation was established and engaged in EPC business

1993 – CTCI Corporation started to list in Taiwan Stock Exchange
(code: TWSE 9933)

Paid-in CapitalNTD 7.95Billion (USD 262 Million)

CTCI Market Cap.....NTD 33.3Billion (USD 1.10 Billion)

Group Market Cap *NTD 55.5Billion (USD1.83 Billion)

*including two listed subsidiaries of ECOVE Environment and CTCI ASI Base date: Mar. 31, 2023
in the sectors of resource cycling and intelligent solution respectively USD:NTD=1:30.336

CTCI offers a comprehensive range of services, products, and solutions for EPC lump-sum projects in **Hydrocarbon, Power, Environmental, Transportation and Advanced Technology Facility**. CTCI has established about 40 affiliated companies in more than 15 regions around the world, with a total of nearly 7,000 employees in the group. It is the first and the only one among the top 100 international engineering companies.

CDP Carbon Climate Change Score: B, Top Ten Model Companies of Taiwan Enterprise Sustainability Award, Top 5% of Corporate Governance Evaluation of Taiwan Stock Exchange (three listed companies) and many other ESG affirmations.

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CTCI

Operation Review

Honors and Awards

S&P Global

The Sustainability Yearbook 2023

Top 1 % Highest Honor
No. 1 in the Global Construction Industry



DJSI Index

A component of DJSI's Emerging Markets index for eight years in a row
Top 1 in Global Construction Company

Member of
**Dow Jones
Sustainability Indices**
Powered by the S&P Global CSA

Taiwan Sustainability Action Awards

CTCI receives Silver Award from
Taiwan Sustainability Action Awards
in the field of water resources



UNFCCC

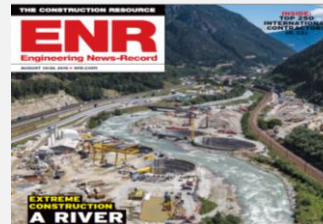
CTCI Education Foundation is
the 11th NGO observer in Taiwan
to be recognized by the United Nations
Framework Convention on Climate Change



United Nations
Framework Convention on
Climate Change

ENR Top-100 Global Engineering Company

International Contractors ranked 60th
Global Contractors ranked 139th
International Design Firm ranked 76th



Top 5% performer in the Corporate Governance Evaluation

3 listed companies in the Group continue to be
listed by Taiwan Stock Exchange Corporation



2022 ESG Sustainability Progress

Governance (G)



- Total participation in ESG to practice net **zero EPC**.
- Linking ESG sustainability performance to **KPIs**.
- Established **CTCI Net Zero Alliance of Supplier**.

Environment (E)



- Green engineering keeps growing: with **Green Contracting**, and **Green Investment** and **Green Technology**, as the core for the win-win of economy and environment.
- Cofound Taiwan Net Zero Emissions Association · pledging to achieve zero carbon emissions for office premises by 2030 and zero carbon emissions for office and project sites by 2050, and joined SBTi to formulate a **2050 net zero roadmap** (45% reduction in 2030, net zero in 2050).
- Green office actions: energy management, smart green buildings, green procurement, etc. Example: the electricity consumed by the first headquarters in 2022 is **7.5% lower** than 2021.
- The installed solar capacity of second headquarters is **44kW**. The first headquarters will add **55kW** in 2023.

Social (S)



- CTCI University's online platform for talent cultivation without borders and zero time difference.
- CTCI EF cultivates sustainable engineering talents and is **Taiwan's 11th NGO observer** recognized by UNFCCC.
- Hosted the "Taiwan Sustainable Engineering Forum" with the theme of "**Net Zero Carbon Emissions**".

Leveraging our Core Business ESG Opportunities

Green Contracting

2015
Green technology, low carbon and environmental protection projects
23%

Backlog : 403% growth

Jan 2023
Green technology, low carbon and environmental protection projects
62%

Green Investment

- The total amount of green investment by the group exceeds **NT\$40 billion**.
- The group's green finance is approximately **NT\$7 billion**.



Green Technology

Benefits for owners in 2019-2021

- Electricity saving: **840 million kWh**
- CO2e reduced displacement: **11.70 million tons**

About **30,000** Daan Forest Park Carbon adsorption capacity in a year

2022 Year In Review



Revenue Hits Record High

- New contracts amounted to \$102.5 billion, backlog was \$328.9 billion, and revenue growth reached a record high of \$95.1 billion with 35% annual growth rate in 2022.



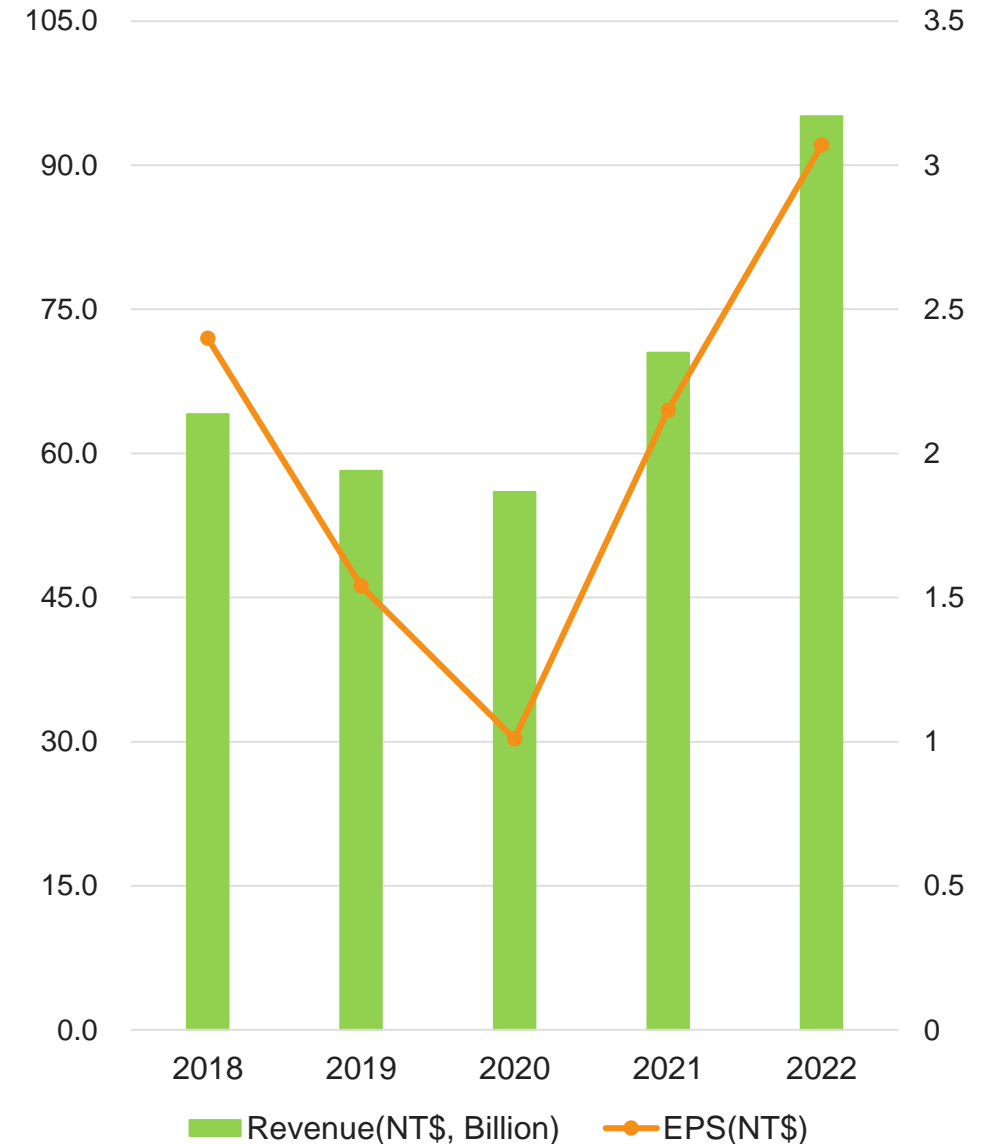
Significant EPS Growth

- EPS growth of 43% from 2021, supported by revenue growth

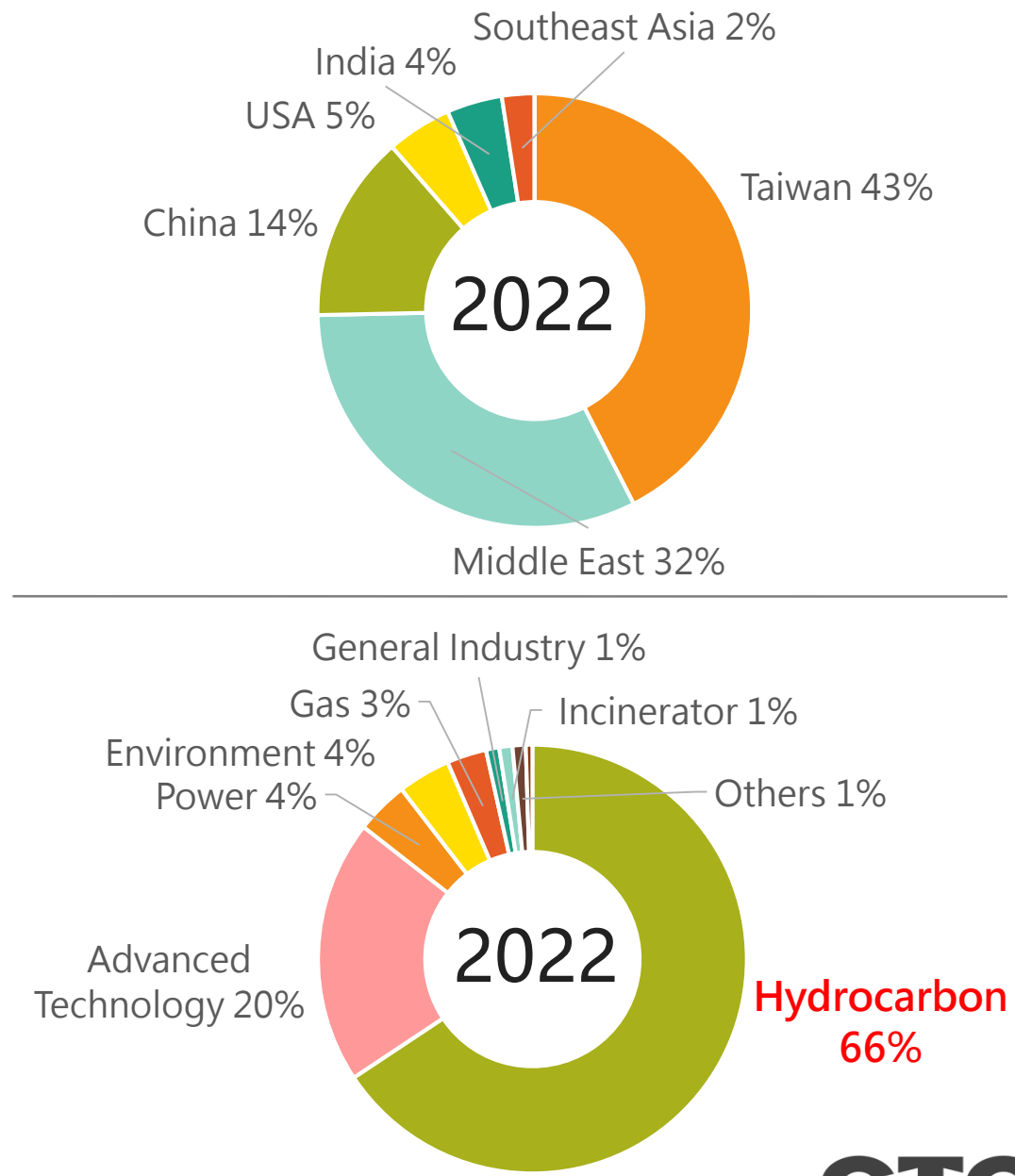
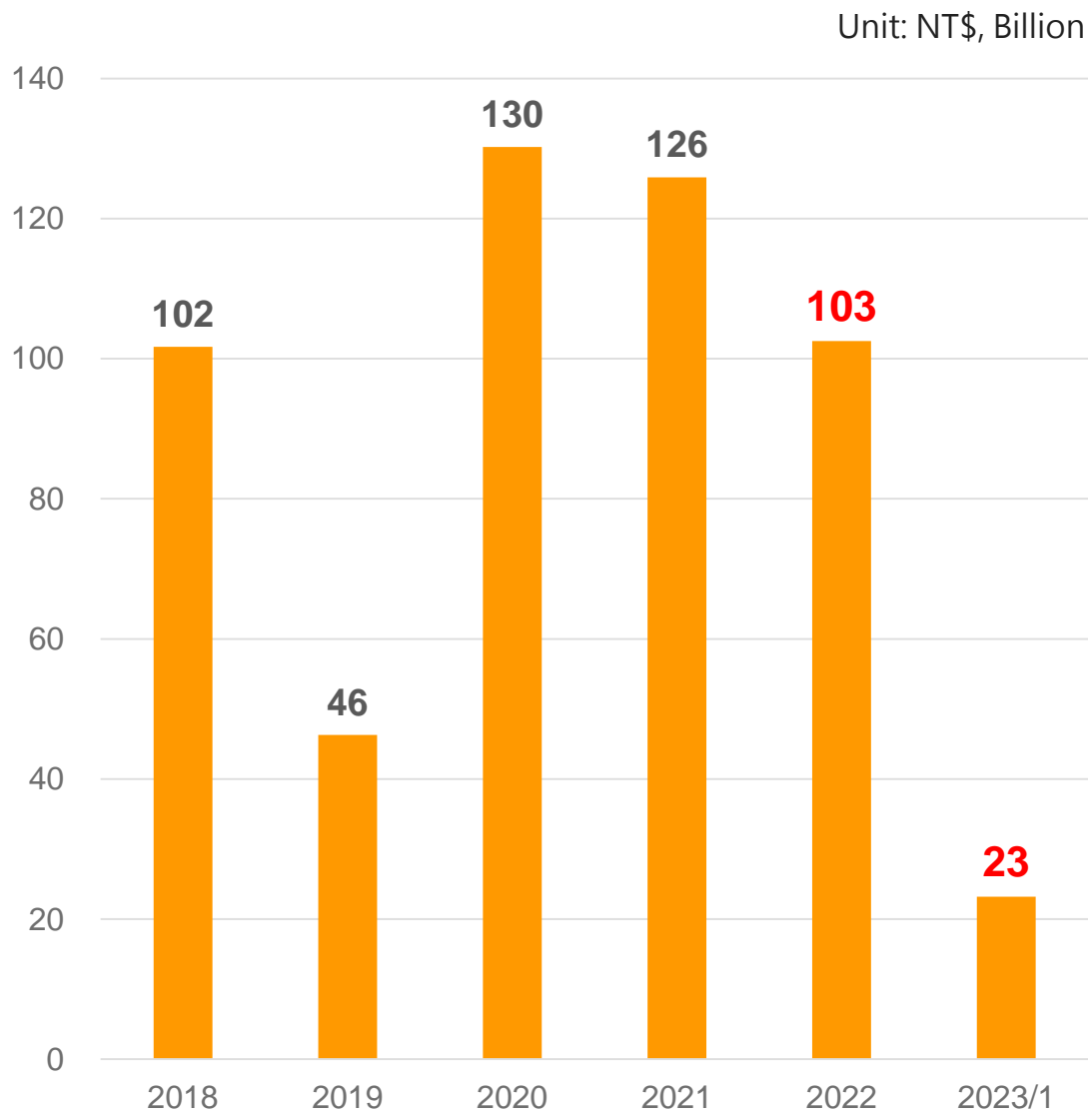


Overseas Market Opportunities

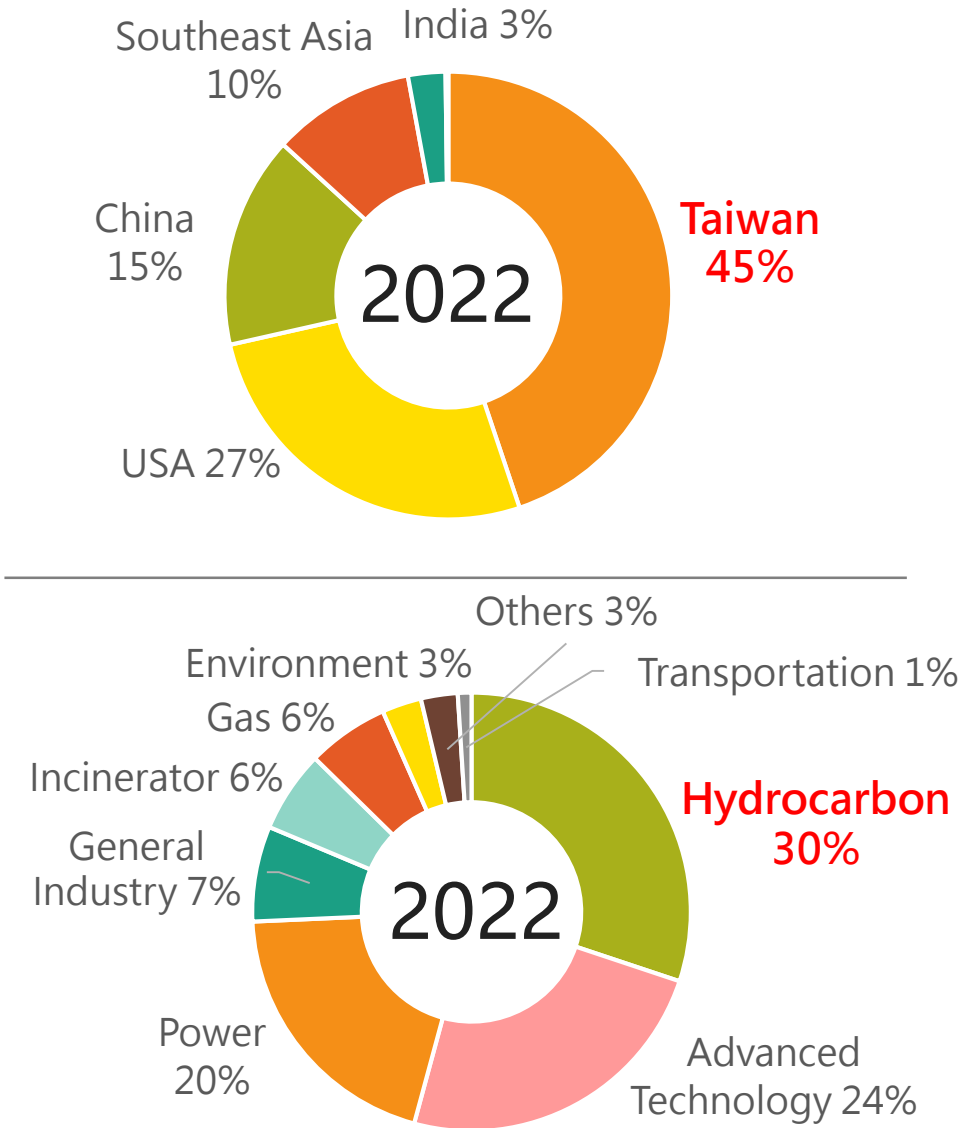
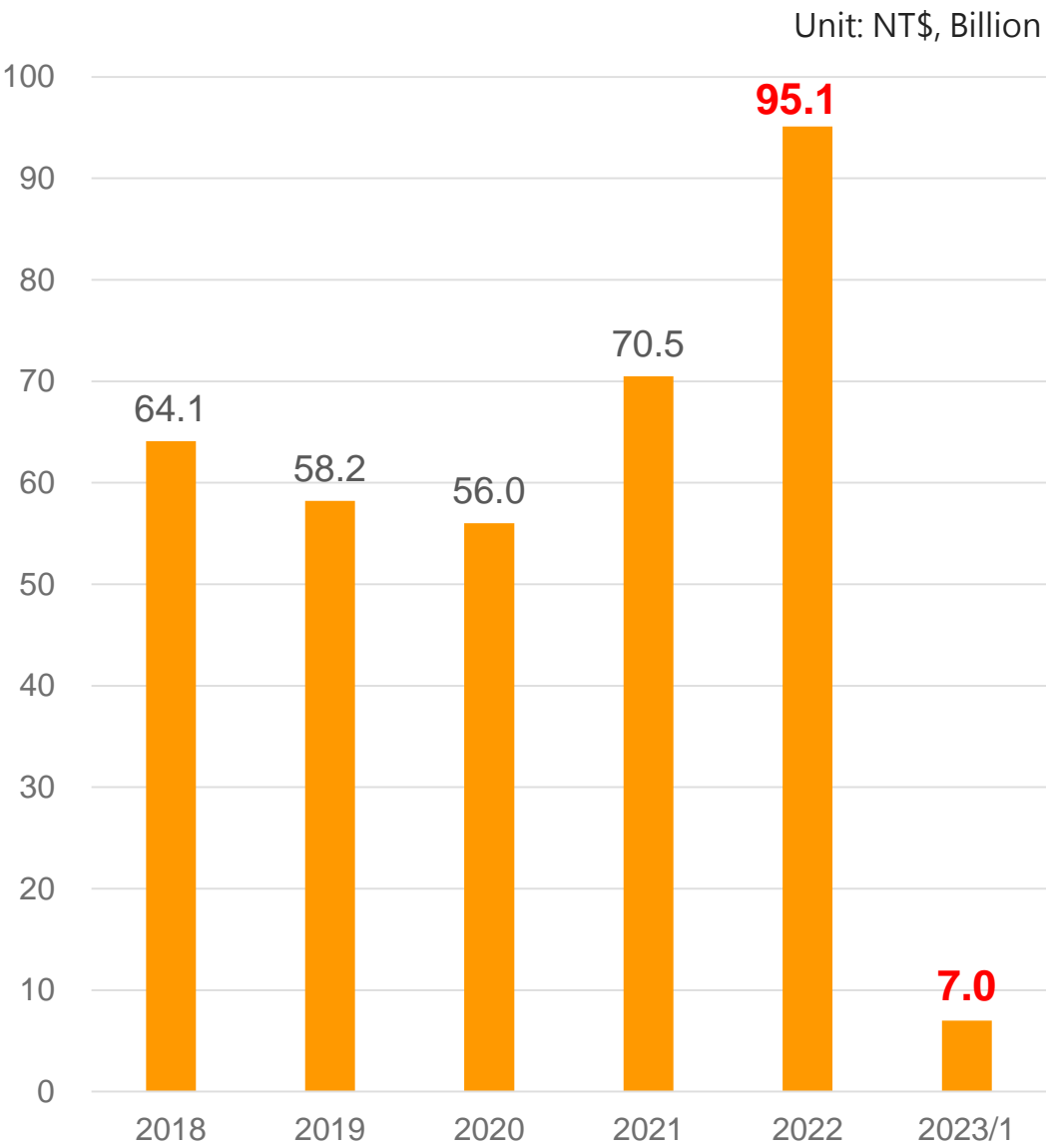
- The Middle East market rebounded, CTCI awarded the RLPP ethylene plant turnkey project of 2.08 million tons ethylene production which will become one of the largest ethylene plants in the world



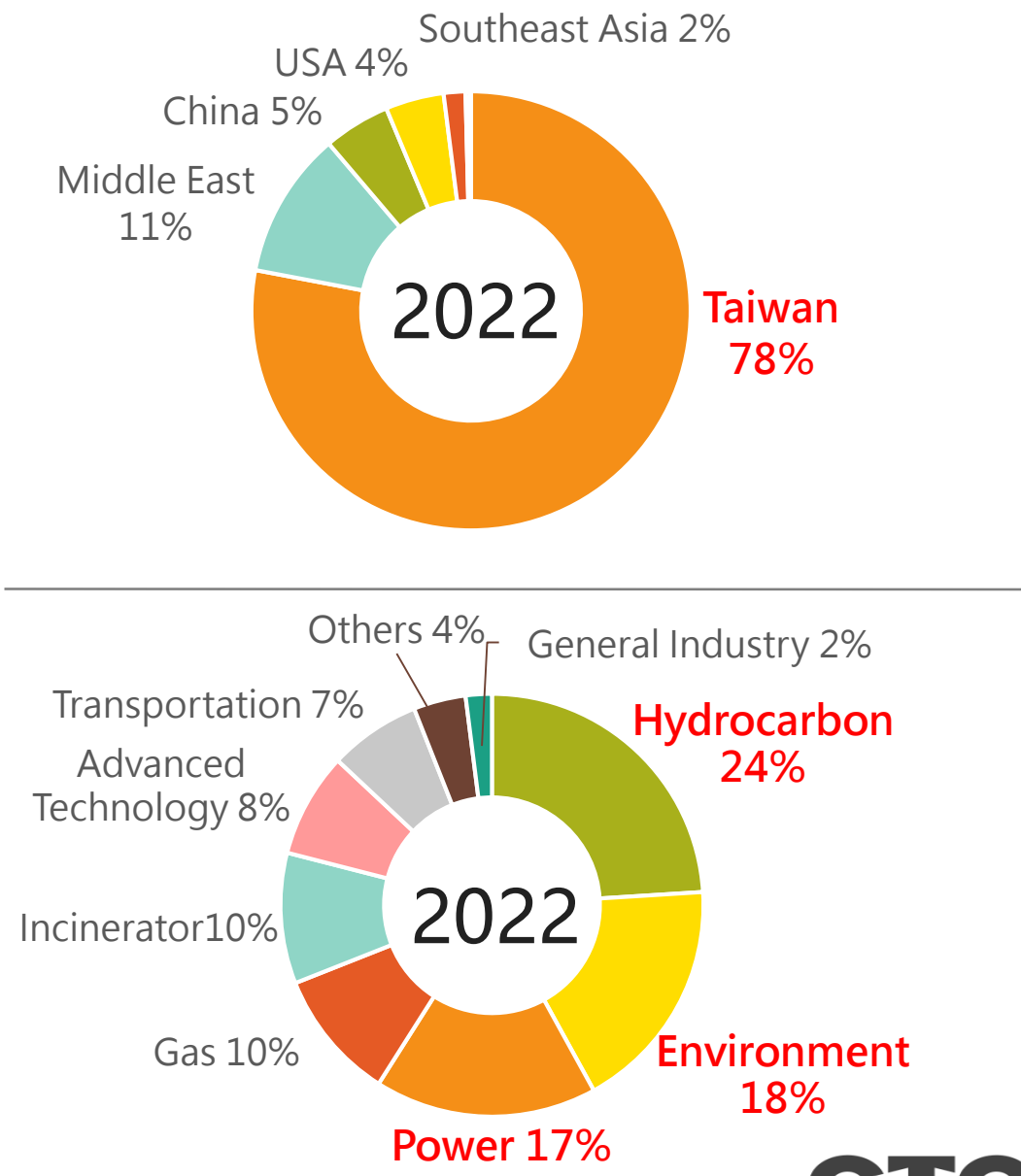
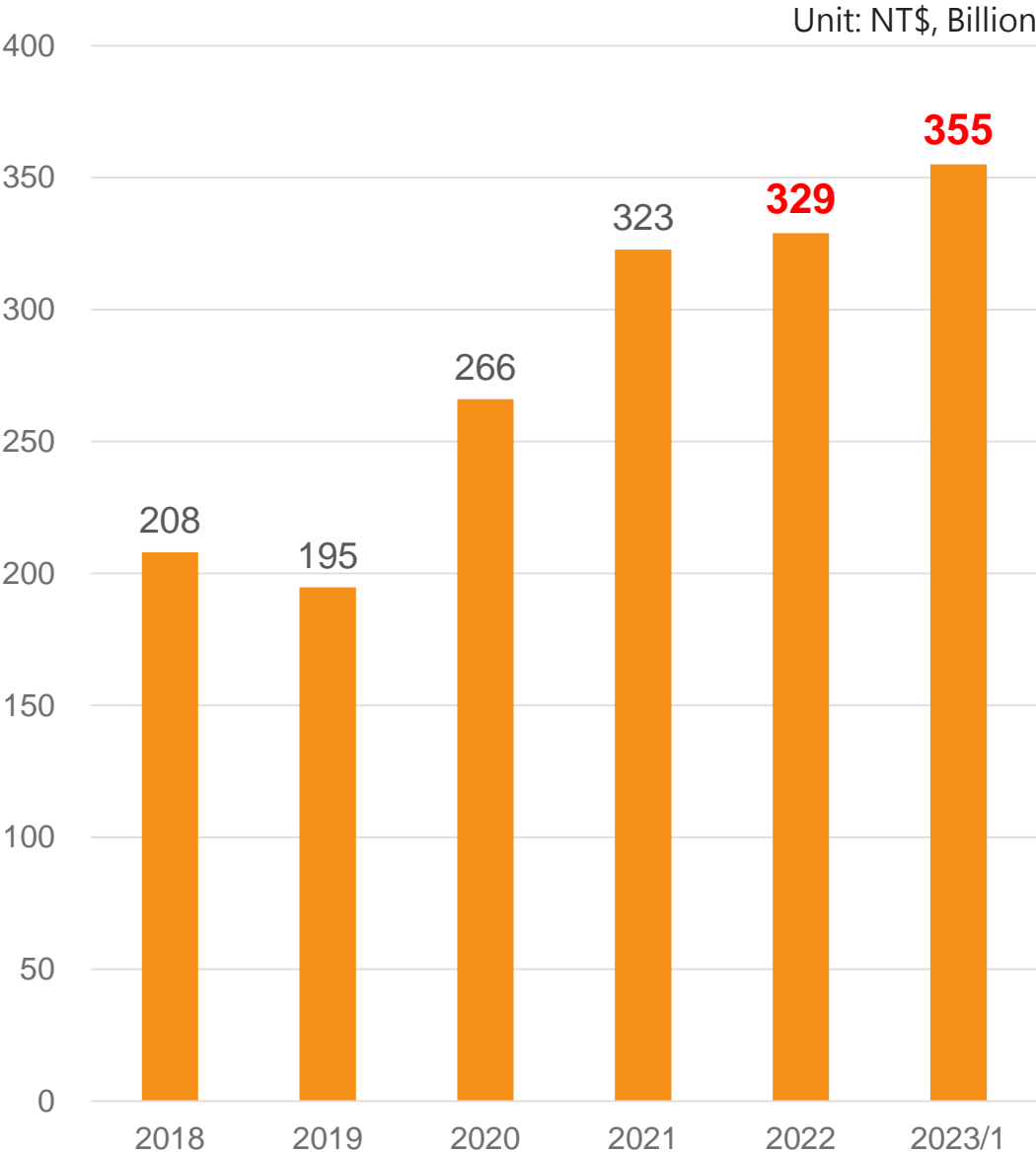
New Contracts and Distribution



Revenue and Distribution



Backlog and Distribution



Financial Highlights

2022 Consolidated Income Statement

Unit: NT\$, Thousand

	2022/1/1~12/31		2021/1/1~12/31		YOY
	Amount	%	Amount	%	%
Sales Revenues	95,100,568	100.0%	70,540,414	100%	34.8%
Operating costs	(89,720,344)	-94.3%	(66,538,507)	-94.3%	34.8%
Gross Profit	5,380,224	5.7%	4,001,907	5.7%	34.4%
Operating expenses	(1,835,191)	-1.9%	(1,826,660)	-2.6%	0.5%
Operating income	3,545,033	3.7%	2,175,247	3.1%	63.0%
Total non-operating income and expenses	422,410	0.4%	858,281	1.2%	-50.8%
Profit before income tax	3,967,443	4.2%	3,033,528	4.3%	30.8%
Income tax expense	(697,366)	-0.7%	(630,517)	-0.9%	10.6%
Profit for the period	3,270,077	3.4%	2,403,011	3.4%	36.1%
Profit attributable to Owners of the parent	2,379,298	2.5%	1,642,175	2.3%	44.9%
Total basic earnings per share	3.07		2.15		

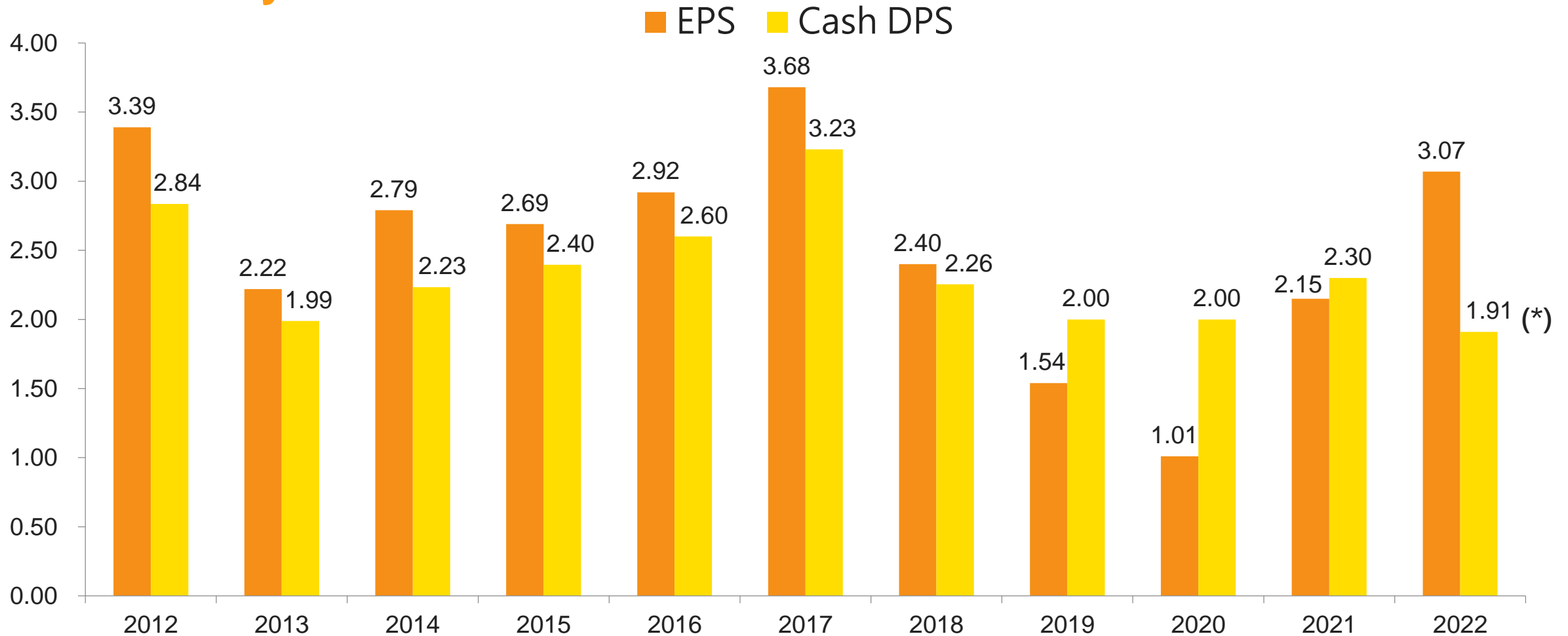
2022 Consolidated Balance Sheet

Unit: NT\$, Thousand

	2022/12/31		2021/12/31	
	Amount	%	Amount	%
Current assets*	65,442,352	70%	61,324,660	70%
Non-current assets	28,117,003	30%	26,100,045	30%
Total assets	93,559,355	100%	87,424,705	100%
Current liabilities	53,822,907	58%	48,579,666	56%
Nun-current liabilities	17,904,401	19%	18,284,174	21%
Total Liabilities	71,727,308	77%	66,863,840	76%
Equity attributable to owners of The parent	17,426,505	19%	16,580,555	19%
Non-controlling interest	4,405,542	5%	3,980,310	5%
Total equity	21,832,047	23%	20,560,865	24%
Total liabilities and equity	93,559,355	100%	87,424,705	100%

*Cash and cash equivalents in current assets are NT\$21.2 billion

Dividend Payout

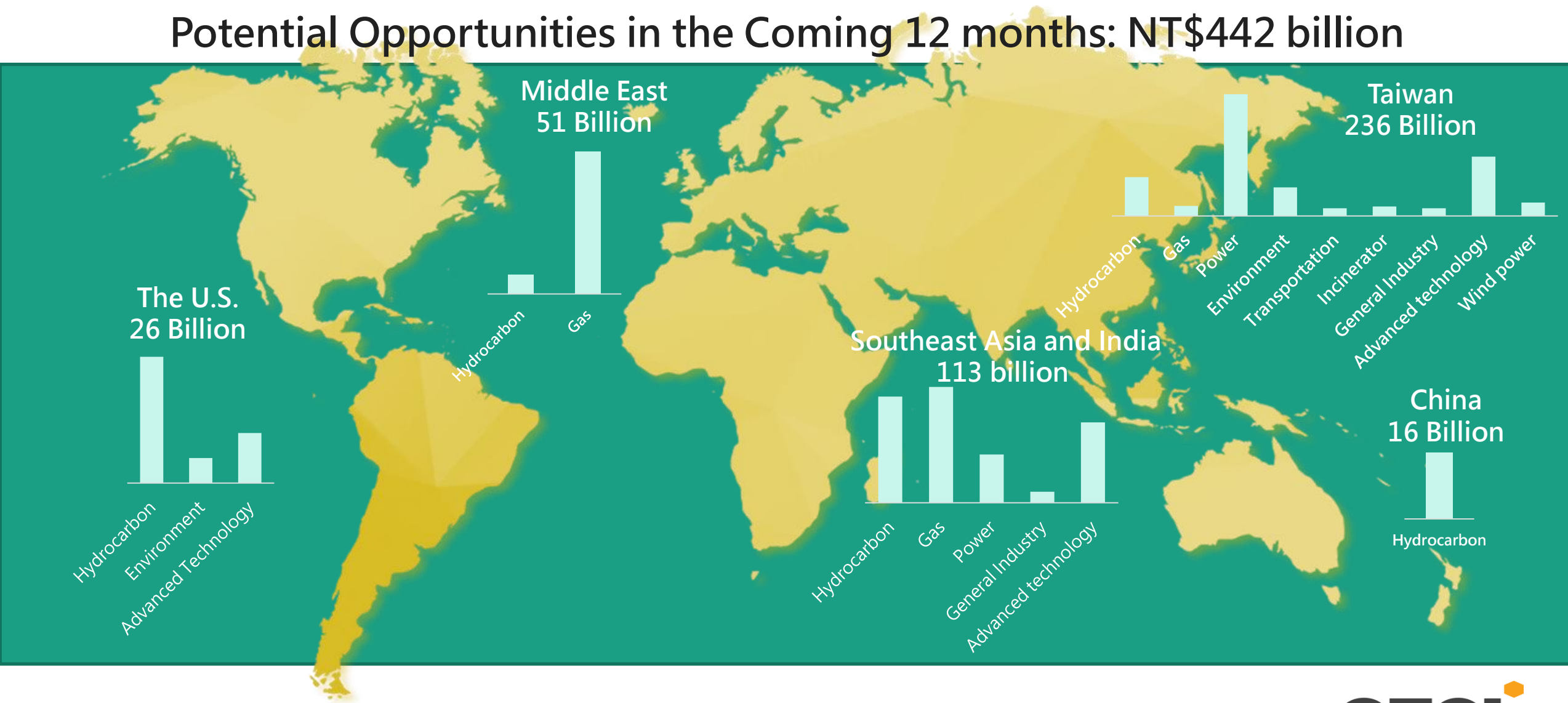


- * : 1. A portion of the retained earnings was reserved for the Company's capital requirements for future investment/construction/operation projects in reclaimed water, desalination, resource recycling and intelligence.
2. The net decrease in other equity was increased, so the unappropriated earnings from retained earnings was provided to special reserve.

Business Outlook

Potential Opportunities in the Coming 12 Months

Potential Opportunities in the Coming 12 months: NT\$442 billion



ESG Opportunities - Clean Energy (1/2)



Taiwan's Ministry of Economic Affairs' Medium-Term Plan for Energy Transition "Reducing Coal, Increasing Gas " mentions that by 2030, renewable energy will account for 27%-30%, coal will decrease to 20%, and gas will account for 50% of power plants. In 2022, gas power plants was 1.1828 million kWh, which accounted for 38.8%.

Taipower will accelerate the expansion and reconstruction of gas power plants such as Dalin, Concord, Tongxiao, Taichung and Xingda power plants which will be launched soon.

The government is actively promoting private power plant (IPP) bids, and plans to achieve the power supply target of 5,370MW between 2025 and 2027.

- ✓ CTCI is the sole EPC company who is capable for turnkey projects for natural gas facilities and storage tanks. After Datan Power Plant, the first gas-fired power plant to be outsourced under EPC contract, Taipower released numerous gas-fired power plants totaled of 13,850MW under EPC contracts and CTCI has market shares of 74%.
- ✓ Extend advantages to bid projects in Thailand and Vietnam, strive for opportunities for LNG terminal and subsequent power plants in compliance with local energy policies.
- 🎯 **Recent Major Achievements: three gas-fired multiple-cycle power plants such as Hsinta 3,900MW CCPP Project, Taichung 2,600MW CCPP Project and Sunba Power Phase II 1,000MW IPP Project.**



ESG Opportunities - Clean Energy (2/2)

Offshore Wind



Total setup capacity in **2025**

5,738MW

Total setup capacity in **2035**

20,738MW

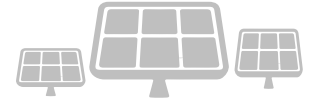
Block development release **1,500** MW/year → 100 fans/year

Wind turbine demand: 100 pcs/year

60% Localization → Business opportunities grow following with the proportion of localization increases

- ✓ CTCI MAC participated in the manufacturing of underwater foundation and transition piece totaled of round 1,150MW → From 2017 to 2022, revenue increased by 140%
- ✓ CTCI REI have stepped into Wind Business and awarded design work of underwater foundation
- ✓ CTCI and Van Oord has formed a strategic alliance to bid for EPCI work

Solar Photovoltaic and Energy Storage



The Group is involved in the field of solar photovoltaic and energy storage:

Investment/Development (cumulative) – **154** MW

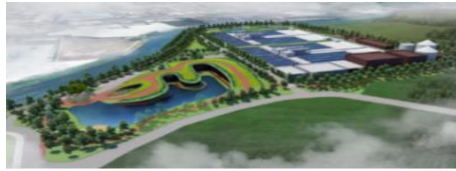
Operation and Maintenance (cumulative) – **476** MW

- ✓ The U.S. government's investment tax credit, renewable energy incentive system and tariff exemptions for solar components in four Southeast Asian countries are boosting business opportunities in the U.S. solar market
- ✓ Phase II expansion of existing project in New Jersey, USA
- ✓ Investment in energy storage industry

ESG Opportunities - Water



TSMC Tainan Science Park Reclaimed Water Plant



Construction of sewage sewer system in Zhongli area



Kaohsiung Fengshan Creek Reclaimed Water Plant



Kaohsiung Linhai Sewage Treatment and Reclaimed Water Plant



Taoyuan North District Water Recycling Center

BOT

1.5+20 years

20,000 tons/day

The world's first project of high-tech wastewater reclaimed to the semiconductor process

BOT

2+33 years

156,000 tons/day

The total length of the pipeline is 246 km, connecting 200,000 households

BTO

2+15 years

45,000 tons/day

The first domestic municipal sewage recycling BTO demonstration project

BTO

3+15 years

33,000 tons/day

The first domestic project that combines municipal sewage treatment and reclaimed water systems

BTO

3+15 years

40,000 tons/day

Supply Taoyuan Refinery, Guanyin Industrial Zone and Nan Ya Plastics

- ✓ Government continuously plans numerous new reclaimed water plants before 2026, together with couple private reclaimed water plants planned in High-Tech Parks of total daily capacity about 500,000 tons ; Taiwan is also planning six new desalination plants with investment/construction/operation, which are expected to handle about 850,000 tons of water per day. The two plants in Hsinchu and Tainan have passed the EIA this year, with a combined capacity of 300,000 tons per day. **Market Opportunities: NT\$120bn(exclusive of operation work)**
- ✓ Fengshan Creek, Linhai, and Tainan Science Park reclaimed water plants are already in operation, and Chungli sewage plant will enter operation in the second half of this year, and the water treatment output can exceed 31 million tons/year in 2023.
- ✓ CTCI Group owns four reclaimed water plants which are investment/construction/operating basis. And CTCI Group is the only one domestic professional player with both municipal sewage and industrial sewage treatment capabilities, together with the abilities in full life cycle performance in investment/construction/operation in reclaimed water business.

22  **Recent Major Achievements: Tainan Science Park Reclaimed Water Plant has been commercialized, Taoyuan North District Water Recycling Center**

ESG Opportunities - Circular Economy

Indicative Performance



Taichung Uri Resource Recycling Plant

- The first domestic large-scale municipal waste incineration plant launched in BOT model



Macau Waste Incineration Center

- The first Taiwan player to award overseas waste incineration project and has exported the local expertise to overseas market as a precedent



ECOVE Solvent Recycling Corp.

- Has obtained "BS 8001 Circular Economy Inspection Statement" in 2020.
- Has passed the BSI verification under PAS 2060 specification by the British Standards Institute, and achieved 100% carbon neutrality in 2021.



Taoyuan Biomass Energy Center

- Adopting cutting-edge global technologies to allow over 25% power generating efficiency and becoming the best in Taiwan



Changbin Low Carbon Recycling and Disposal Center

- Enables the Group to provide a complete one-stop service from removal, recycling to incineration and landfill disposal



Waste incineration plants are being replaced or expanded to meet more stringent pollution prevention and control standards, and to achieve the goals of efficient power plants, pollution reduction, energy conservation, carbon reduction, and environmental greening. **Market Opportunities: NT\$140 billion.**



Southeast Asia's rapid economic development and the requirements of quality of life, environmentally friendly, circular economy and green waste incinerators are also one of the power generation projects considered in Southeast Asia. In response to the global trend, recycling and zero-waste center opportunities continue to emerge.



CTCI is the only professional manufacturer in Taiwan that has the entire life cycle performance and technology covering the investment, construction and operation of waste incineration industry, and is also the first manufacturer in Taiwan to export localized technology overseas.



Recent Major Achievements: Changhua Xizhou EfW Plant O&M and Revamping Services, Kaohsiung Gangshan EfW Plant O&M and Revamping Services, Changbin Low Carbon Recycling and Disposal Center

ESG Opportunities - Rail Transportation

- + From 2021 to 2026, 12 track construction plans are planned. The pre-planning and environmental assessment of rail construction in Taiwan's Forward-looking infrastructure projects have been completed one after another and the subsequent tendering will be proceeded, including the Eastern Section of the Taipei MRT loop, the East Lake section of the New Taipei MRT Shih Chi and Keelung MRT, the brown line of Taoyuan MRT, the Blue Line and green line extension of Taichung MRT, the circular network of Hsinchu Light Rail, the blue line of Tainan Advanced Transportation System Phase I, etc.

Total Route Length: about 190 km

Total Budget of E&M Work: about NT\$150 billion

- + The government promotes the nationalization policy of the rail industry and actively supports the light rail rapid transit.

- + South East Asia (e.g. Thailand) MRT projects are being launched


- + **CTCI is the leading player in domestic MRT system E&M work lump sum turnkey business**

The only one player who has the E&M Integration experience and capability

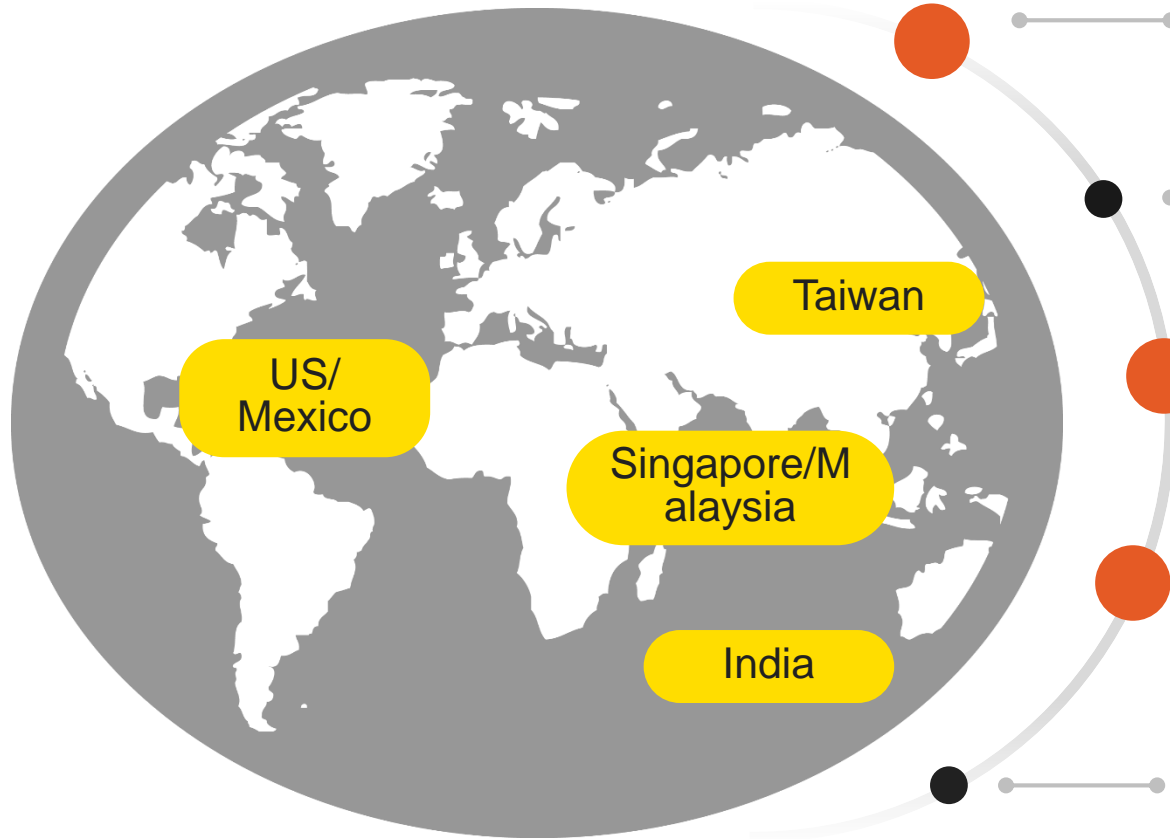
The only one player who has the Detail Design Ability in power supply system

The local player who has the Highest Market Share in E&M work



 **Recent Major Achievements: Taoyuan Metro Green Line GC03 MEP Project, Taipei Metro's Circular Line North & South Sections**

High-Tech Market Opportunities



Data Center

Market growth slows, but cloud and data center still in high demand. Microsoft and Google still continue to strengthen cloud services.



Foundry Business

Global demand slowdown leads to increased inventories and some planned new plant investments turn to wait-and-see. Capital expenditures are expected to decrease by nearly 20% in 2023



Computer & Accessories

Taiwan electronics makers set up new supply chains in India and Vietnam



Optics Business

The global power battery market is expected to move from GWh to TWh by 2024 and exceed 3TWh by 2030, benefiting from the demand for electric vehicles



Taiwan Hi-Tech Chemical Supply Chain

The chemical supply chains follow the semiconductor manufacturers new expansion worldwide to invest new factories.

Building Differentiation Advantage

Strength

- Domestic: Planning and Design + Factory Building + Clean Room → **Total Solution**
- Overseas: Combine Overseas Bases → **Expand Global Business Opportunities**



Recent Major Achievements:

Domestic DRAM factory work, two Foreign invested Data Centers in Taiwan, Kaohsiung Hofta Industrial Park Lithium Battery Project, Taiwan Electronics Factory Construction Project in India

Market Opportunities in the Refining and Petrochemical Industry


Global traditional petrochemical market growth slows, but recycling chemicals become the investment focus for international companies and low-carbon products and technologies become a necessary option in response to ESG trends

The Daling Oil Storage and Transportation Center in the Kaohsiung Port Intercontinental Container Terminal Phase II is a major projects of the Kaohsiung City Government which will become the key business opportunities in the domestic market.

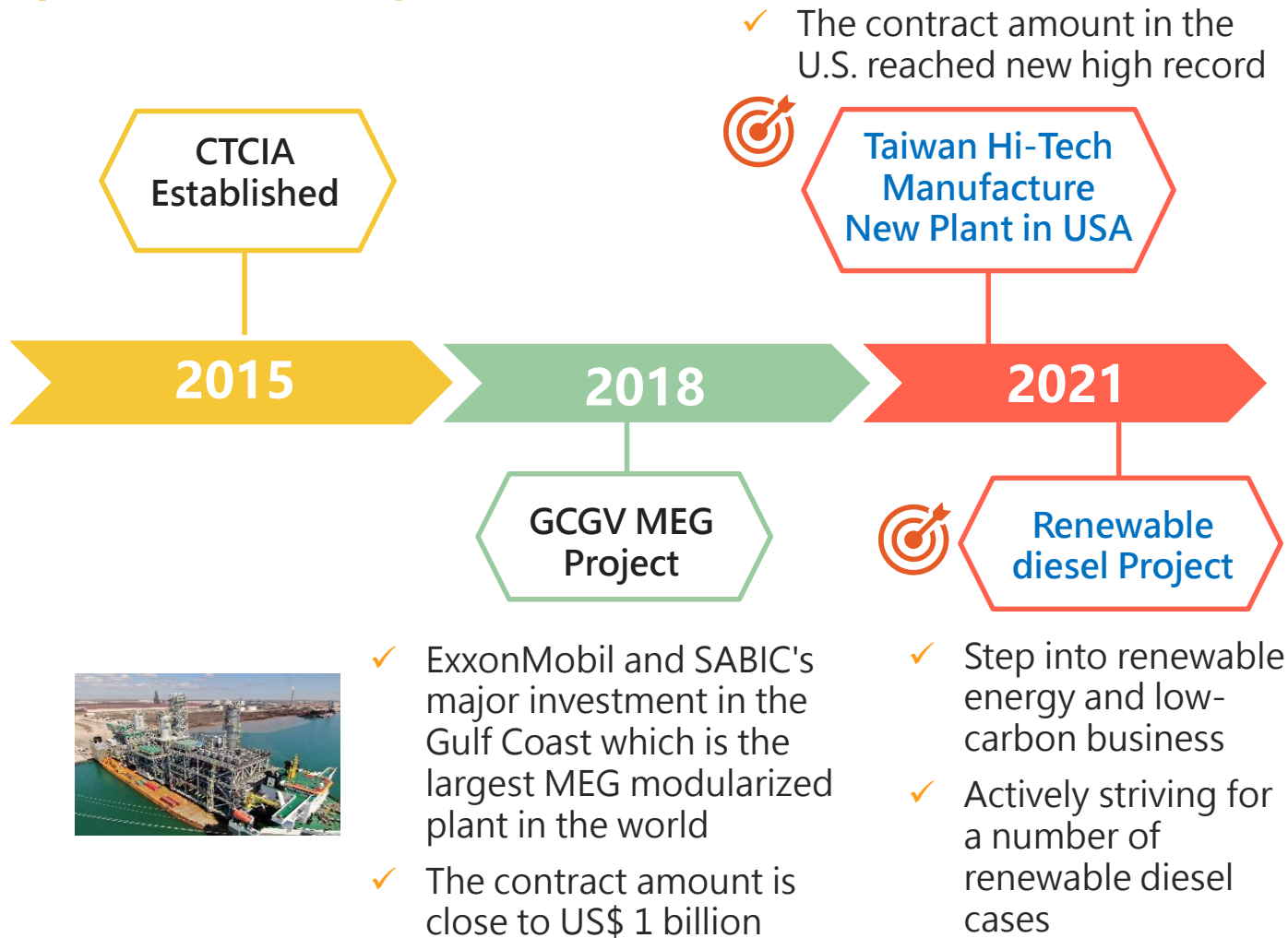
The overseas market has regained investment momentum, and Middle Eastern countries are benefiting from the rise in oil prices. On one hand, petrochemical manufacturers have launched reform plans for their existing oil refining and petrochemical plants, while also strengthening the development of natural gas and downstream petrochemical products.



- ✓ With over 40 years of global engineering experience in refining and petrochemicals, CTCI has a strong competitive edge in the domestic market. In the overseas market, CTCI has been able to create a win-win situation with customers and partners by flexibly deploying strategic partnerships in the Middle East market.

 **Recent Major Achievements:** Two refrigerated tanks and a refrigerated unloading facility at Dalin Storage and Transportation Center, Qatar RLPP ethylene project.

Market Opportunities in the Americas (U.S., Mexico)



+ Semiconductor Industry Business

- US President Biden signed the US\$280 billion (8.4 trillion TWD) "Chip and Science Act" on 2022/8/9 to stimulate the investment opportunities in the U.S. and to rebuild U.S. semiconductor production capacity.
- From 2022 to 2025, more than 40 new fabs worldwide is estimated and most of them will be in the U.S. The new fabs and their industry supply chain will drive business opportunities.

+ Expansion into Mexico

- Benefiting from the U.S.-Mexico-Canada Trade Agreement (USMCA), the automotive industry has gathered in Juarez, Mexico, which is just a bridge away from the U.S., to set up factories, and Taiwanese companies have started their plant expansion plans in Mexico
- Mexican subsidiary is establishing to capture local business opportunities

Market Opportunities in China

Market opportunities : NT\$100 billion

- ✓ BASF Petrochemical Complex Project in Zhanjiang, Guangdong
- ✓ Dow Chemical Manufacturing Hub for Specialty Chemicals in Zhanjiang, Guangdong
- ✓ SABIC/Fuhaichuang Petrochemical Complex Project in Gulei, Fujian
- ✓ Aramco Liaoning

Investment from Taiwan :

- ✓ Quanzhou Grand Pacific Chemical Co. Ltd.
- ✓ Zhangzhou CHIMEI Chemical Co., Ltd.
- ✓ Formosa Petrochemical Corporation (FPCC)
- ✓ Chang Chun Petrochemical Co., Ltd.
- ✓ Taita Chemical Co., Ltd.



Green and Low-carbon Investment

Under China's carbon peak and carbon neutrality "dual carbon" target, 10 low-carbon investment themes, many provinces in China have finalized green industry investment plans for the next five years, and the average annual investment in green industry is expected to be around RMB 3 trillion.



China's Fourteenth Five-Year Plan

Announced to accelerate the goal to enlarge high-value downstream polymers, implement the elimination of backward production, and promote the integration of production capacity.



Foreign Investment Returns

The relaxation of foreign investment restrictions has prompted the increase in new investment projects by foreign businessmen in China, consolidating the competitive advantage for the advantage of a few BASF designated partners.



Advantages of Deep Farming

CTCI Beijing has been in China close to 30 years and is one of the few foreign engineering companies that entered China in the 1990s. The localization and the Class A qualifications of chemical and petrochemical, municipal administration, etc., enhance the competitiveness.



Recent Major Achievements: BASF (Guangdong) NIS Cluster project, Ascend Performance Materials Co. Ltd. new plant project, Formosa Plastics Ningbo Ethylene Cryogenic Tank Project, China-Korea CoreX New Material Project

