CHINA STEEL CHEMICAL CORPORATION
(1723)
Investor Conference

September 2024

Safe Harbor statement

- This presentation may contains forward-looking statements. All statements other than historical and current fact, without limitation, including business outlook, predictions, estimates, are forward-looking statements.
- Such statements are based upon management's current beliefs and expectations and are subject to various risks, uncertainties and other factors that could cause actual outcomes and results to differ materially.
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Recap of Recent Major Events

- CSCC Board of directors approved the investment in a second line of graphitization furnaces at the Pingnan Carbon Materials Plant.(2022/05/05). The second phase of the graphitization production line is planned to add 4,000 tons of graphitization capacity. This project was completed in Q2 2024 and is currently undergoing trial production.

- CSCC approved the investment in Research and Development Center at the Pingnan Carbon Materials Plant.(2023/09/27),estimated completion date is the end of year 2025.

Agenda

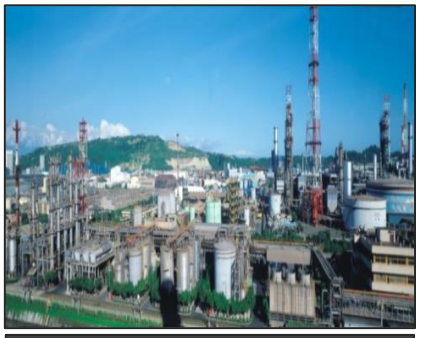
1. Profile
2. Operating Performance
3. Sustainable Development
4. Future Development

1. Company Profile

CSCC operates the production and sales of coal tar series products, light oil series products, coke series products and refined carbon material products.

- The only coal chemical plant in Taiwan.
- The first professional graphitization plant in Taiwan.


中鋼總部大樓


煤化學工廠


碳材料工廠


常州中碳

Basic information

Company name	**China Steel Chemical Corporation**
Inception	**February 3, 1989**
Company Address	**25F, No. 88, Chenggong 2nd Road, Qianzhen District, Kaohsiung City, 806**
Capital	**NT$2,369,044,800**
Listed Date	**November 27, 1998（Stock symbol：1723）**
Number of Employees	**337 （PhD-8、Master-101；Male-87%、Female-13%）**

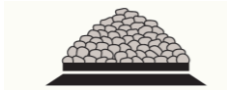
The structure of shareholder

Major shareholder	Percentages
China Steel Corp.	29.04%
International CSRC Investment Holdings Co., Ltd.	4.96%
Fubon Life Insurance Co., Ltd.	3.93%
Ever Wealthy International Corp.	2.01%
Zhichengde Investment Co., Ltd.	1.46%

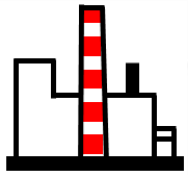
As of ：July 15,2024

The Relating Product Map of Coal Chemical Industries

Upstream (CSC、DS)	Midstream (CSCC)	Downstream



Coal



Coke Oven

- Coal Tar
  - Soft pitch
    - Carbon material application
    - Electrode Rod
  - Naphthalene
    - Dyes, Monthball
  - Creosote Oils
    - Carbon Black, wood Preservative oil
- Light Oil
  - Benzene
    - Styrene, Alkyl benzene
  - Toluene
    - Solvent
- Coke
  - Small size coke
    - Carbon additive

Coal Chemical Products Sales

Product	Domestic	Export	Product Overview
Soft Pitch	1%	99%	Used for baking aluminum anode materials, mainly exported to long-term customers in Australia.
Creosote Oils	45%	55%	Used for making carbon black, a raw material for tires. Export market mainly in Japan.
Naphthalene	10%	90%	Used for making naphthalene balls and dyeing pigments. Naphthalene balls exported to Southeast Asia, and dyeing pigments exported to India.
Benzene	100%		A basic raw material for the petrochemical industry with wide applications. Insufficient domestic supply must rely on imports, and now for all are domestic sales .
Toluene	6%	94%	Used as a solvent, mainly exported to Singapore.
Small Size Coke	100%		After partial processing, supplied to domestic customers for making carbon- additive.

Note: The ratio of domestic and foreign sales is the ratio of revenue in 2023.

Applications of Carbon material product

Carbon material product

Soft Pitch

RBP

Green Mesophase Powder

Mesophase Graphite Powder

ACS

Graphite Block

Application

Carbon Fiber Precursor

Densifier for Graphite

Li-ion Battery

Supercapacitor

Lead-Acid Battery

Graphite Crucible EDM

Carbon material product

Product	Domestic / Export	Product Overview
Green Mesophase Powder		Mainly sold to anode material factories for producing anode materials, with exports primarily to China. And Also used for other applications in non-anode materials.
Mesophase Graphite Powder		Sold to battery cell factories for making Li-ion Battery, with exports primarily to China, Southeast Asia, and Japan.
RBP		Sold for use in steelmaking electrode rods for dipping processing, with exports primarily to China, Southeast Asia, and Japan.

Note: The ratio of domestic and foreign sales is the ratio of revenue in 2023.

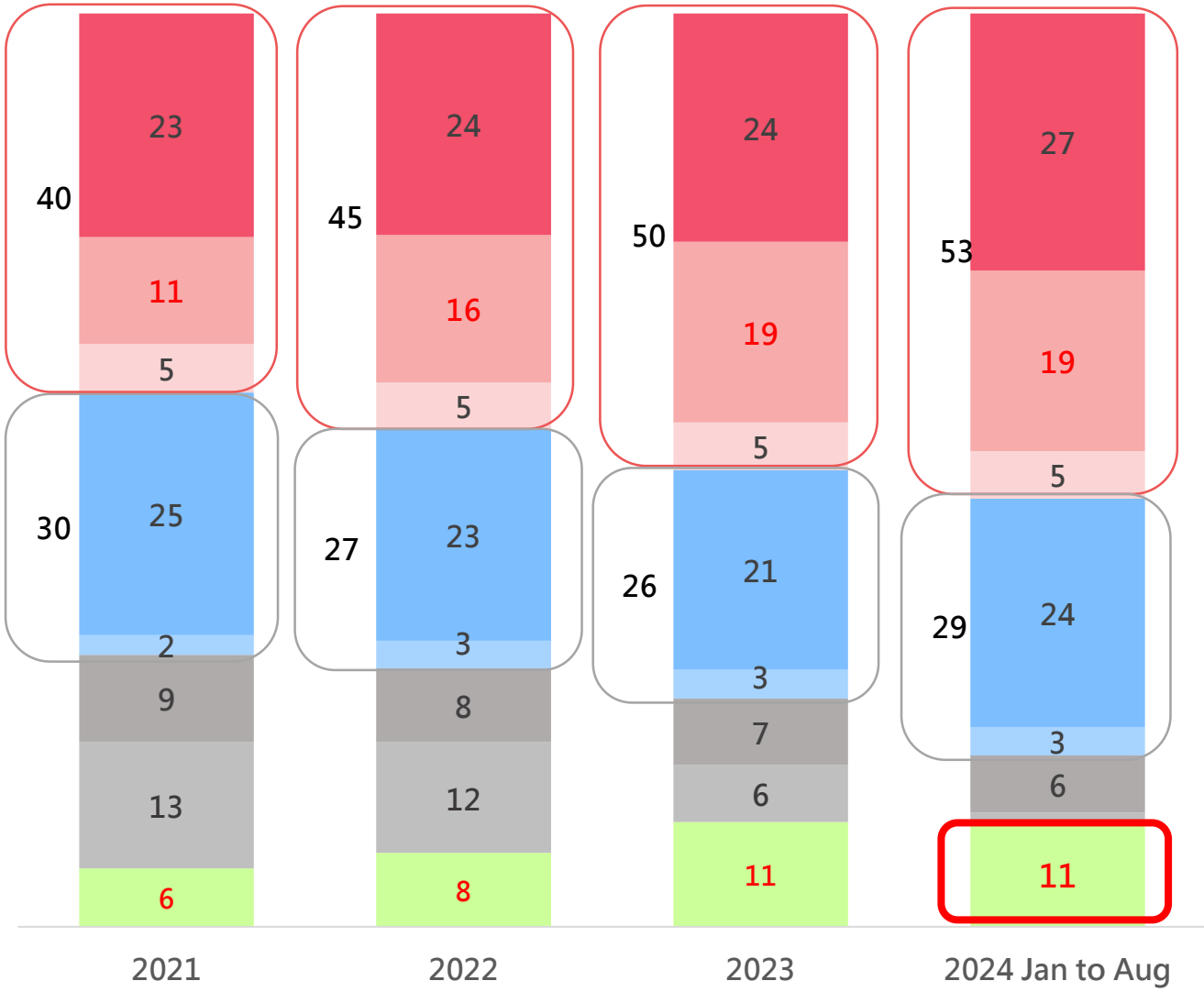
Raw material inputs

(Unit：ten thousand metric tons)

Revenue breakdown by products in the past three years

Coal Tar Product

LO Product

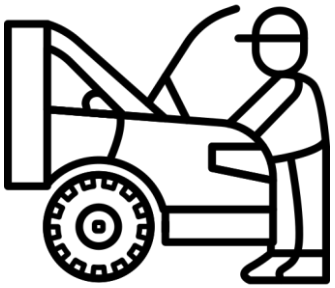


Unit：%

- Creosote Oils
- Soft Pitch
- Naphthalene
- Benzene
- Toluene
- Small Size Coke
- Trading
- Carbon Material
- Others(Balance)

Coverage of a variety of industries

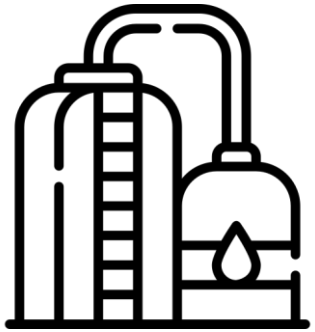
Creosote Oils



Carbon Black

-Car industry

Benzene



Basic raw material in Petrochemical industry

Soft pitch

Aluminium smelting industry

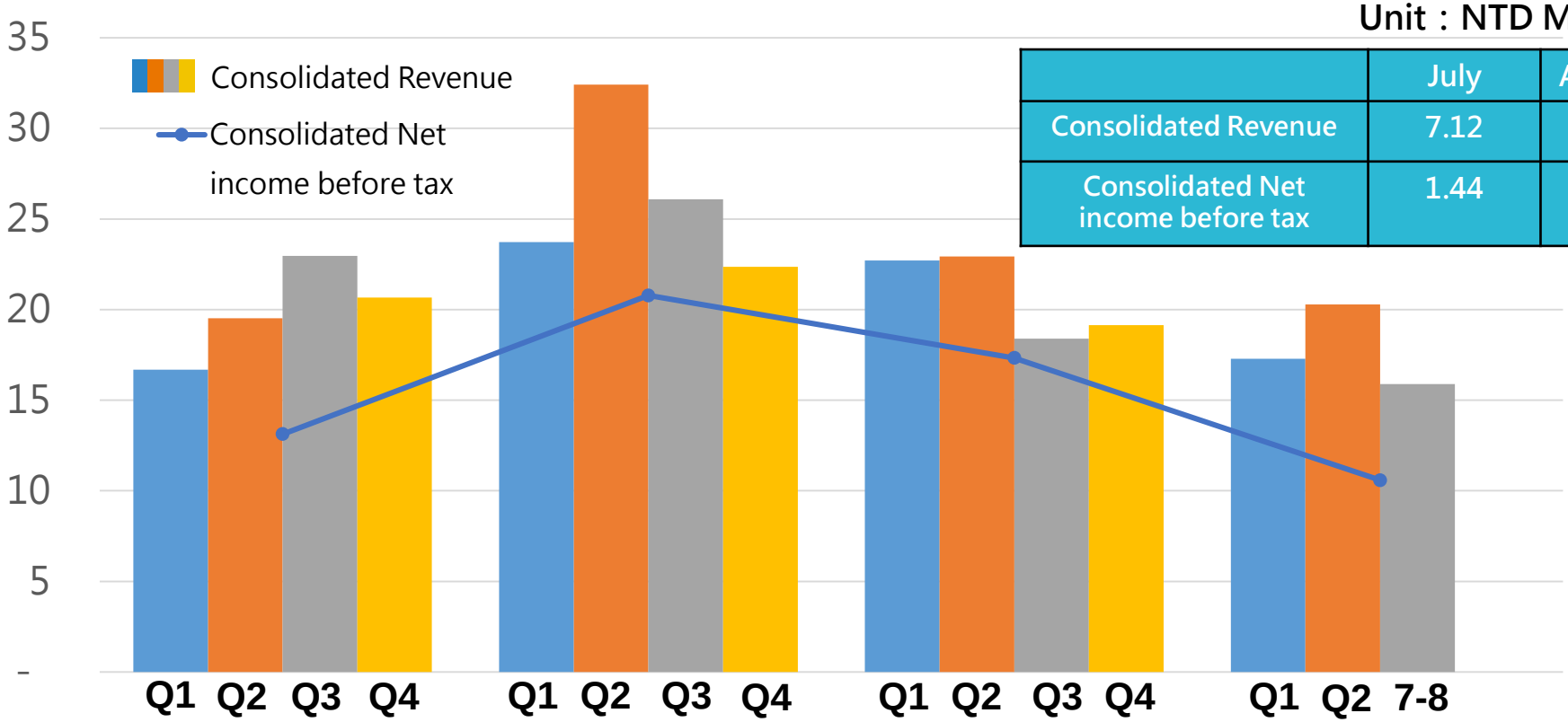
Carbon-Material

Energy storage /electric batteries

2、Operating Performance

Consolidated Revenue and Net income before tax in the past three years

Unit：NTD Million

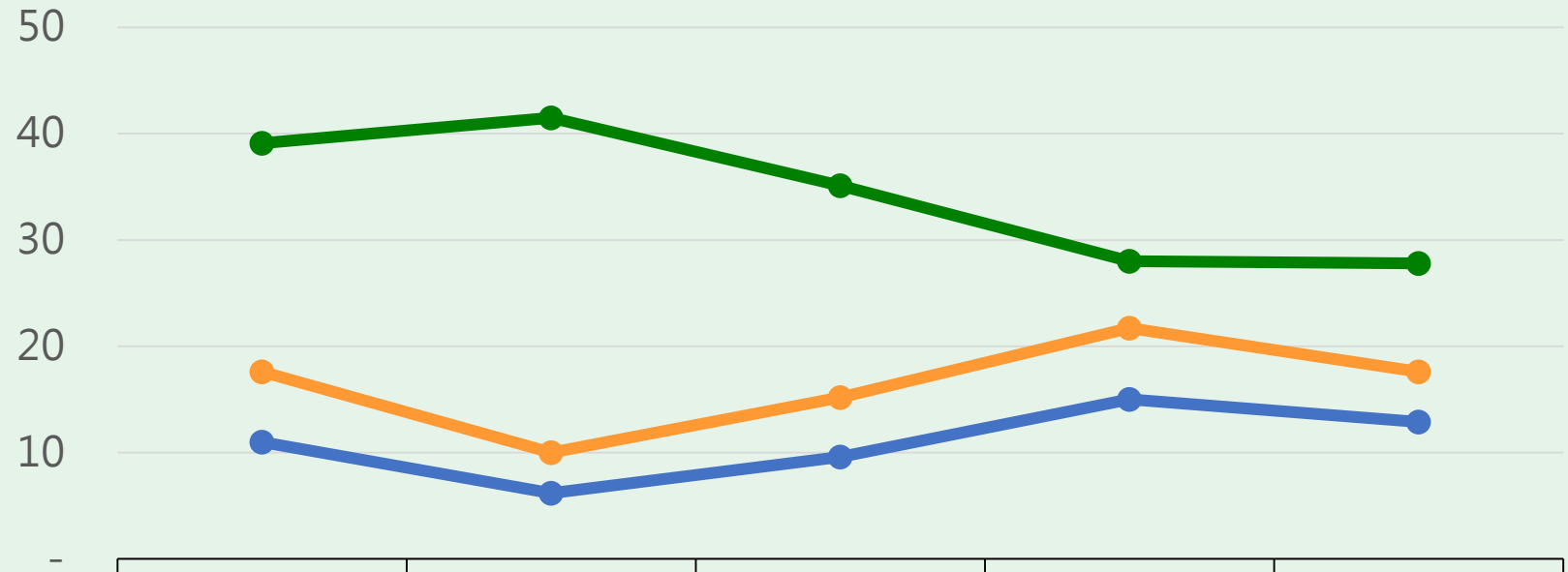


	July	August
Consolidated Revenue	7.12	8.77
Consolidated Net income before tax	1.44	1.80

	2021	2022	2023	2024 Jan to Aug
Consolidated Revenue	79.82	104.60	83.18	53.47
Consolidated Net income before tax	13.13	20.78	17.33	10.58

Major financial indicator

Unit：%



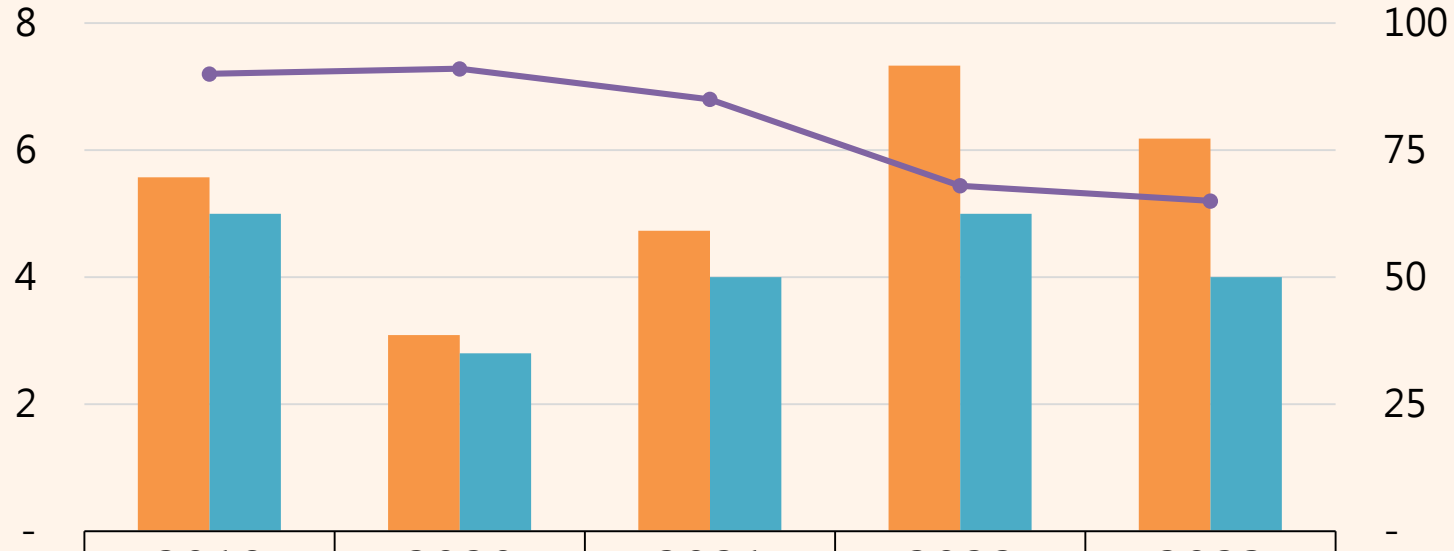
	2019	2020	2021	2022	2023
Debt ratio	39.1	41.5	35.1	28.0	27.8
ROA	11.0	6.2	9.6	15.0	12.9
ROE	17.6	10.0	15.2	21.7	17.6

Dividend Policy

Unit：NTD/Per share

EPS and Dividend in the past five years

Div. payout ratio
Unit：%



	2019	2020	2021	2022	2023
EPS	5.57	3.09	4.73	7.33	6.18
Cash Div.	5	2.8	4	5	4
Div. payout ratio	90	91	85	68	65

CSCC has been profitable for 30 consecutive years. The total amount of distributed dividends (including stock dividends) is NT$127.35.

3、Sustainable Development

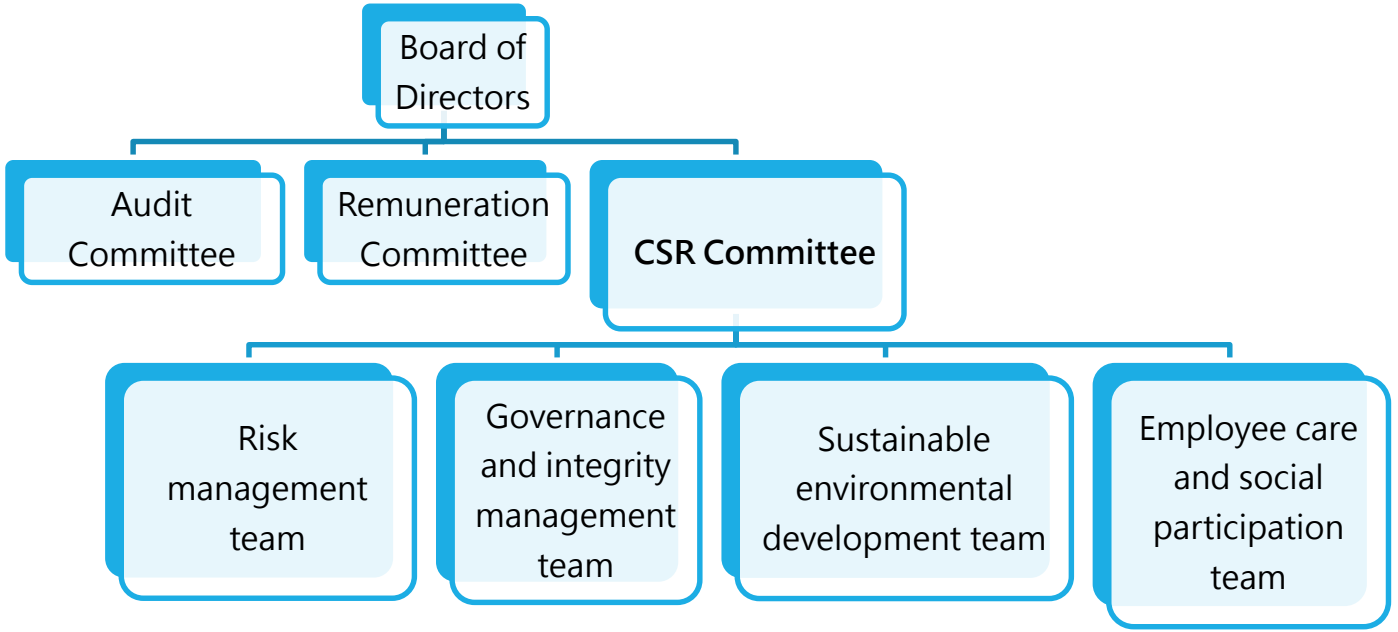
Coporate governance Evaluation

Governance

To establish Sustainable Development Committee.

CSCC was in the second grade(6%~20%) according to the lasted corporate governance evaluation results(2023), and for four consecutive years.

CSCC was involved TWSE Corporate Governance 100 index(2022 and 2023).



Save energy and Reduce carbon emissions

	Cumulative average electricity saving rate(%)	Water/Waste water use intensity(%)	Air pollution reduction (SOx tons/year) (NOx tons/year)	Scope 1 and 2 reduction (%)
Short-term goals (2024)	1.05 (Coal Chemical) 1.00 (Carbon Chemical)	1.5 (Coal Chemical) 1.1 (Carbon Chemical)	SOx： < 5 NOx： < 25	2
Medium-term goals (2025-2028)	1.05 (Coal Chemical) 1.10 (Carbon Chemical)	1.5	SOx： < 3 NOx： < 20	2025~26：2 2027~28：5
Long-term goals (2029~2033)	1.1	2	SOx： < 1 NOx： < 15	2029~30：5 2031~33：3 FY2050 *carbon Neutrality*

Carbon Reduction Achievement:

From January to August 2024, a total of 24 energy-saving and carbon reduction initiatives were implemented, resulting in an actual carbon reduction of **1,604 tons**, which has **already reached 93%** of the annual planned reduction target.

ESG Awards

2019-2023

- Gold Award from TCSA

2022

- National Enterprise Environmental Protection Award-Bronze medal
- Top 100 Carbon materials competitiveness on Business Weekly

2023

- Awarded for Environmental Protection Sustainability Contribution Award
- Awarded for Excellent Trading Business

2024

- Award for The 9th National Environmental Education Award of the Excellence Award
- Award for Affairs 113 Industrial Park Greening and Beautification-Second Place

2021-2024

Awarded TIPS Level A Patent and ertification

2023

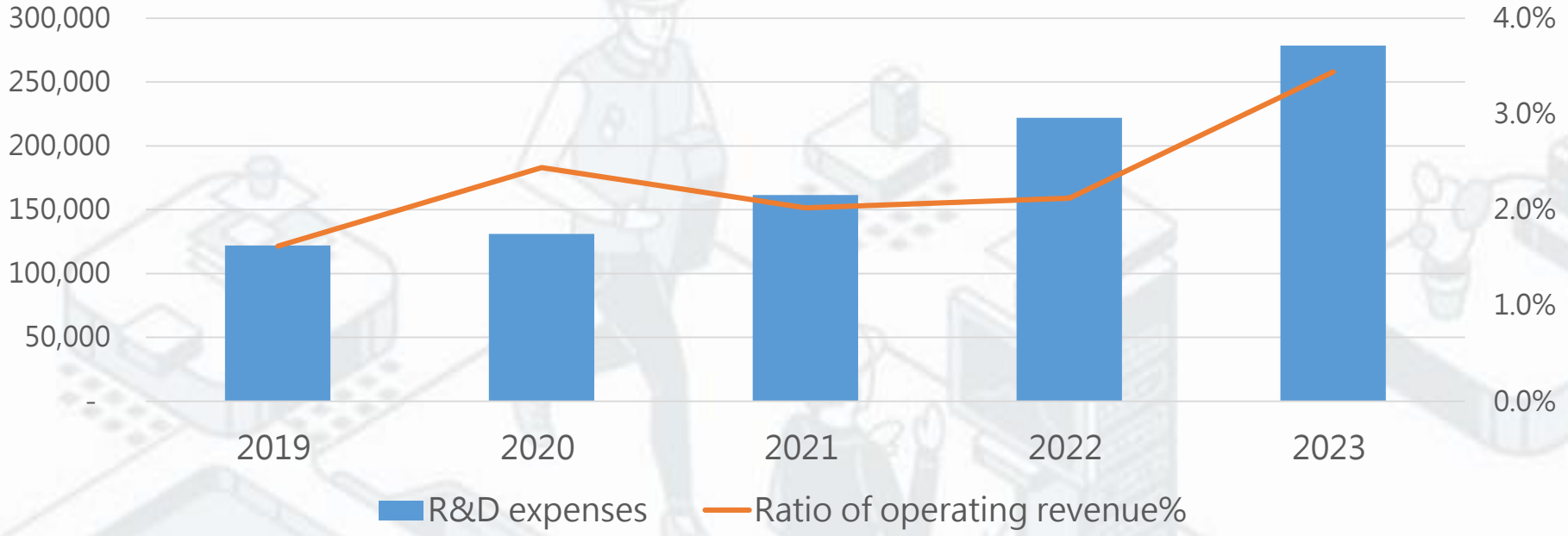
Awarded Certification of information security ISO 27001

4、Future Development

- Mesophase Graphite Powder
- Advanced Carbon for Supercapacitors
- Graphite Block

R&D expenses and Industrial innovation

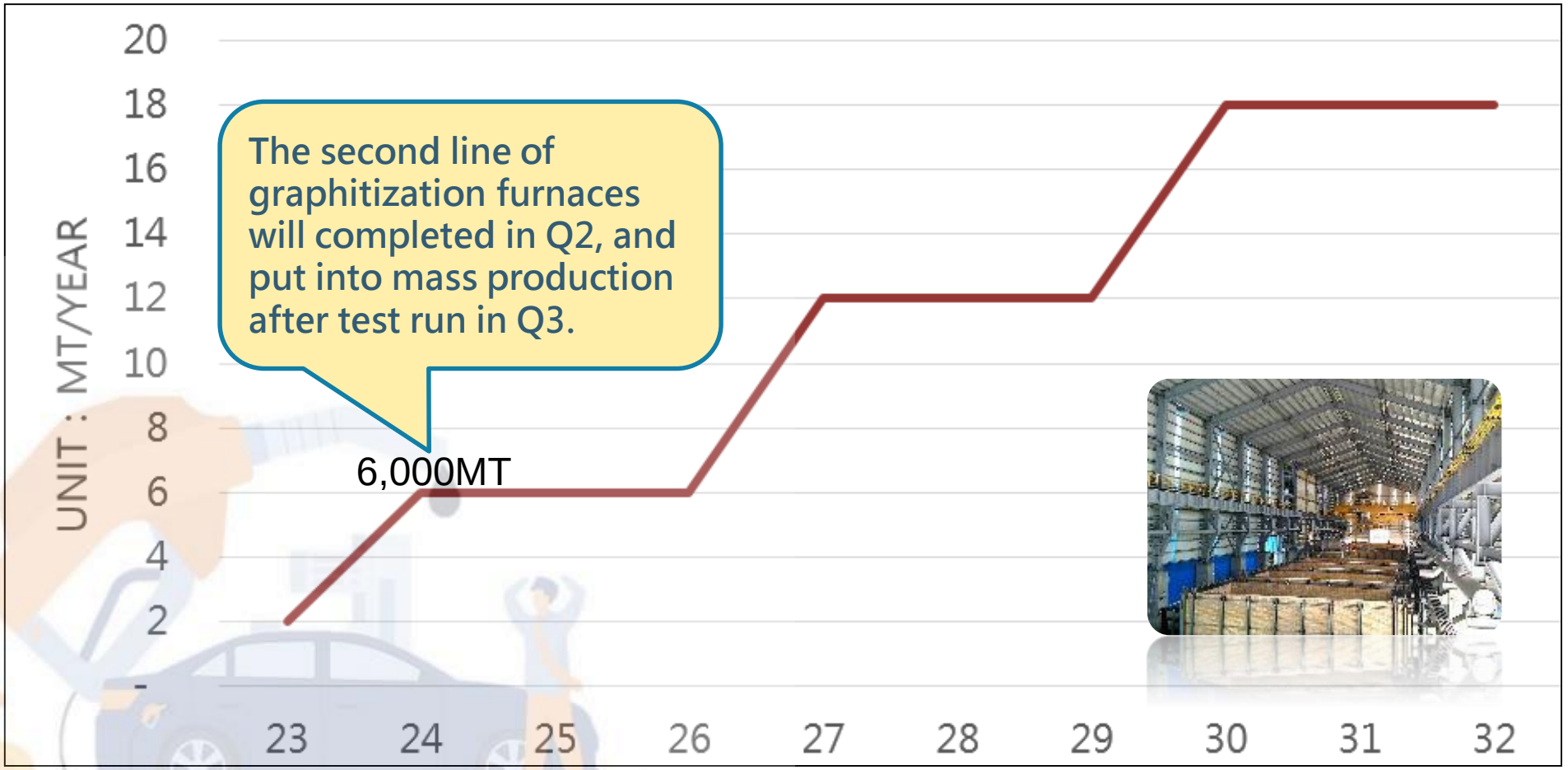
Unit：NTD Thousands



Industrial innovation subsidy projects in recent years	Execution situation
I - The development of high-purity carbon powder and isotropic graphite for use in compound semiconductors.	Completed
II - The development of anode materials for electric bus batteries	Completed
III- The development of high-purity graphite crucible for SiC crystal growth used in compound semiconductors.	Executing

Carbonization Furnaces Expansion

- To plan and expand carbonization furnaces due to the increased demand for anode material.



CSCC's Mesophase Graphite Powder Development

Feature	Development	Opportunities
➢ High first columbic efficiency	➢ Ultra high drainage rate	➢ De-Sinicization
➢ High energy –density	➢ High capacity silicon carbon material	➢ Localization
➢ High discharge capability	➢ High capacity fast charging	➢ Semi-solid State Battery
➢ Long cycle life	➢ Artificial graphite compound	➢ Energy Storage Applications

➢ **Advanced Applications such as F1 Electric Racing Cars,Vertical Take-off and Landing Aircraft (eVTOL)**

Energy Density(Wh/Kg):Low → High

Power Density(W/Kg):Strong → Low

UF1
UF2
Racing car / HEV

MG11
MG10
PT / Drone

MG12
TAG11
EV / ESS

MG13
BS481
Tablets / 3C

Advanced Carbon for Supercapacitors (ACS)

Green Meso-phase Powder → Activation → Clean → Dry → Mill → ACS

- ACS annual production capacity is 90MT/year(two production line)

Features of ACS

- ✓ High Surface Area
- ✓ High Capacitance
- ✓ Good chemical properties and thermal stability
- ✓ Low functional group

Product application

- Supercapacitor
- Lead-acid Battery
- Lithium-Ion Capacitor

Applications of ACS

Supercapacitors

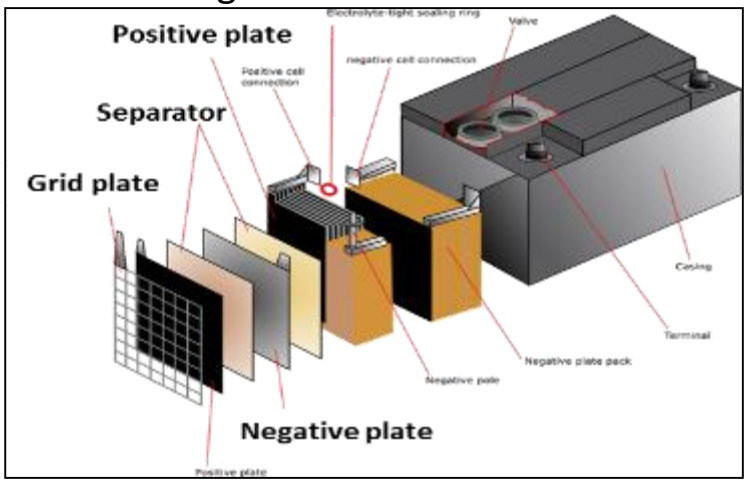
- Supercapacitors have high efficient charge and discharge characteristics. Cycle life is more than twenty thousand times.

➢ Rail vehicle, wind power, automobile field, smart grid, smart appliances

Advanced Lead-Acid Battery

Advantages of addition activated carbon into LAB

- Increasing conductivity
- Improving the uniformity of $Pb/PbSO_4$
- Extending the life of LAB

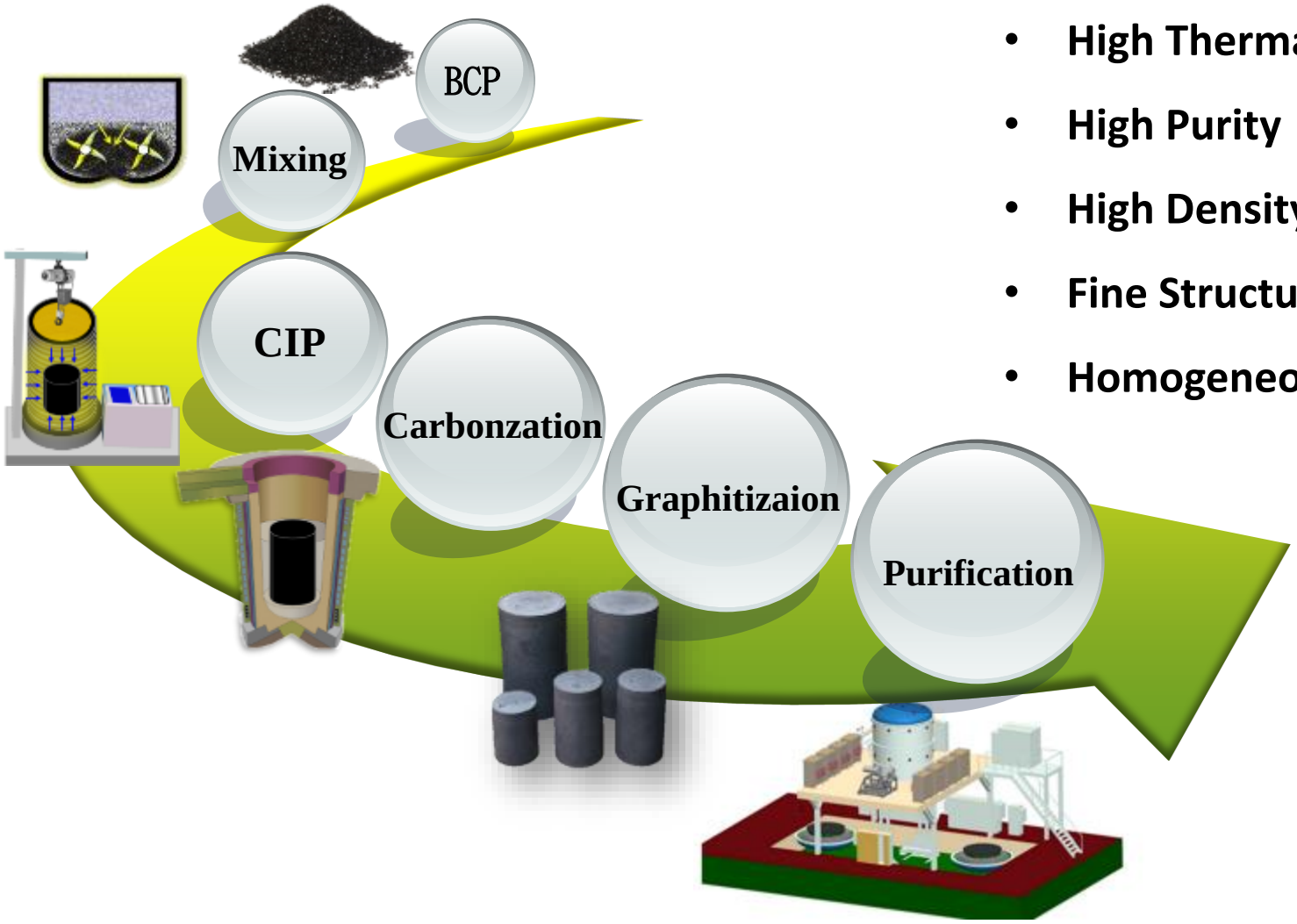


➢ Start-Stop Battery

➢ UPS uninterruptible power system

Graphite Block

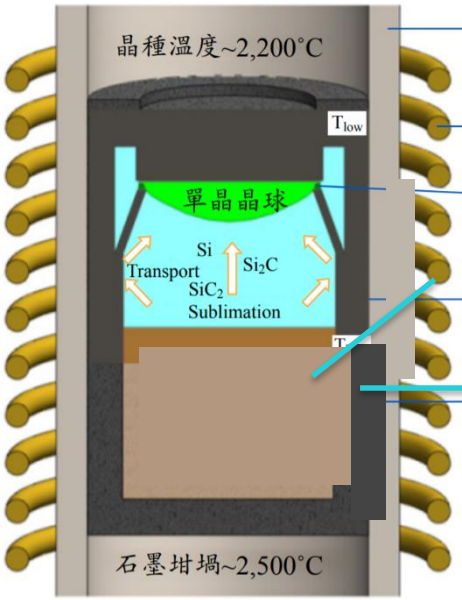
- Thermal and Chemical Resistance
- High Thermal Conductivity
- High Purity
- High Density
- Fine Structure
- Homogeneous



Application of Sic carbide crystal growth

◆ The key carbon materials and graphite materials used in silicon carbide crystal growth include:
A. High-purity carbon powder、 B. Graphite Block

SiC Crystal growth furnace



Insulation layer

Heating coil

Seed crystal

High purity SiC powder

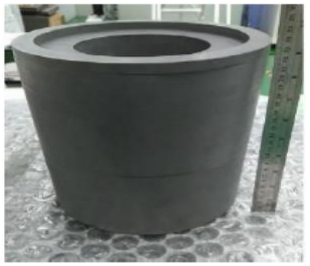
Graphite crucible

A. High-purity carbon powder

B. Graphite Block

Physical Vapor Transport(PVT)

SiC wafer



Graphite crucible

Advantages

Sic power devices possess unique advantages such as high voltage, high current, high temperature, high frequency, and low loss. When applied in electric vehicles and charging stations, they can save up to 75% of energy.

Graphite Block

連接板	螺帽	連鑄治具	3D玻璃模具
			
支撐軸件	連鑄模具	加熱器	石墨電極
			
半導體構件	SiC長晶坩堝	SiC長晶坩堝	高純碳粉
			

Silicon carbide compound semiconductor

Our Vision

Our Vision

Creating a sustainable and friendly environment, and precision manufacturing in green energy.

To become a key carbon material supplier for the green energy industry.

Core Values

Customer Satisfaction、Sincerity
Credibility、Cooperation

Q&A

中鋼碳素化學股份有限公司
CHINA STEEL CHEMICAL CORPORATION