

SAS (5483 TT) 2022 Earnings Call

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SAS



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01

Executive Comments

1. Financial Highlights

Revenue

- ✓ Q422¹ → NTD \$21.2 billion, 17.3% YoY, second record high!
- ✓ 2022 → NTD \$81.9 billion, 18.9% YoY, record high!
- ✓ Solar business hit NTD \$10.3 billion

■ Gross Profit %

- \checkmark Q422¹ \rightarrow 36.2%
- √ 2022 → 39%, record high!

Operating Income

- \checkmark Q422¹ \to 27%
- \checkmark 2022 → 31%, record high!

Note: Q422: The fourth quarter of 2022

Net Profit

- \checkmark Q422¹ \rightarrow 24.6%, second record high!
- \checkmark 2022 → 19.7%, third record high!

EPS

- ✓ Q422¹ → NT\$4.33, second record high!
- √ 2022 → NT\$14.87, record high!

Note: Q422: The fourth quarter of 2022



2. Solar Industry Outlook

Worldwide

The energy crisis not only leads to surging cost but also a reappraisal of energy security needs in many countries - a recasting of the energy trade and investment landscape. Many governments have adopted new policies to boost clean energy and efficiency for strengthening energy security. According to IEA (International Energy Association), cheap installation costs are driving solar installation and will leapfrog other renewable energies, claiming #1 spot in 2027.

Taiwan

✓ According to "Taiwan's Pathway to Net-Zero Emissions," renewables are aimed to occupy 60~70% among Taiwan's power supply with solar standing at 40~80GW by 2050, coupled with the legislation of "Climate Change Response Act" the catalysts are propelling the burgeoning solar installation.



3. Reinvestments Highlight

Sustainable Energy Solution Company (SES)

✓ SES provides comprehensive green energy solutions, aligning the needs between buyers and sellers with complete green energy procurement plan.

■ Billion Electric (Billion)

- Billion Electric is committed to developing ICT solutions, network communication equipment and Internet access devices, R&D, manufacturing, and brand sales.
- ✓ Billion group actively supports the global transition to renewable energy by providing technological solutions ranging from PV inverters and monitoring software to energy storage integration to the electrification of marine and land transportation.
- ✓ Billion Electric has unique information and communication technological background combined with solar and energy storage sectors, and has entered the EV charging and battery exchange equipment for electrified transportation, which complements the compound semiconductor business that SAS has actively deployed. Through this investment in Billion Electric, SAS will expand into energy storage, micro-grid integration, and electrification of vehicles, with the primary goal to extend from "Energy Provider" to "Energy Solution Provider," further deepening its footprint in the green energy industry.

4. GlobalWafers

Revenue

- ✓ Q422¹ → NT\$18.4 billion, 16.7% YoY, record high!
- ✓ Continuous growth for 12 quarters since Q120!

(NT\$ mn)	Q419	Q120	Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122	Q222	Q322	Q422
Revenue	13,506	13,515	13,701	14,006	14,137	14,806	15,208	15,364	15,752	16,307	17,540	18,053	18,388

√ 2022 → NT\$70.3 billion, 15.0% YoY, record high!

■ Gross Profit (%)

- \checkmark Q422¹ \rightarrow 42.7%
- √ 2022 → 43.2%, record high!

Operating Income (%)

- \checkmark Q422¹ \rightarrow 34.6%
- √ 2022 → 35.5%, record high!

■ Net Profit (%)

- \checkmark Q422¹ \rightarrow 31.5%, record high!
- √ 2022 → 21.9%

EPS

- \checkmark Q422¹ \rightarrow NT\$13.31, record high!
- √ 2022 → NT\$35.31, record high!

Prepayment

✓ NT\$ 39,731 mn (US\$ 1,293.7 mn)², record high!



Global Economy

✓ IMF has raised it's 2023 global GDP forecast by 0.2% to 2.9%, the first time the forecast has been revised upward in more than a year. World economy continues to face significant recession risks, but start to show signs of bottoming out in 2023 and rebound in 2024.

Semiconductor Industry

- ✓ 2023 is believed to have flat growth, but growth is anticipated to start again since 2024 underpinned by the burgeoning digital economy.
- ✓ Geopolitical factors are also expected to pose a risk to the semiconductor industry for the coming year from both the supply-side and demand-side.

Inventory

- ✓ The upshot from COVID related demand seems to be coming to a natural end and
 the supply disruptions are likely to substantially improve throughout 2023.
- ✓ There is a oversupply in consumer electronics, but shortage exists in analog and MCU installed in the automotive and industrial sectors.



Compound semiconductor

- ✓ SiC is the fastest-growing product in the compound semiconductor market.
- ✓ As SiC has high efficiencies, low switching losses and high thermal conductivities when compared to Si devices, SiC are widely found in various power applications from renewable energy, power supplies for industrial equipment, and EV.

Automotive

- ✓ COVID-19 and Net Zero have accelerated the future of mobility. New participants continue to enter the EV market and invest heavily in electrification.
- ✓ The legacy nodes, particularly those in the automotive industry, are expected to continue seeing disruption throughout 2023.

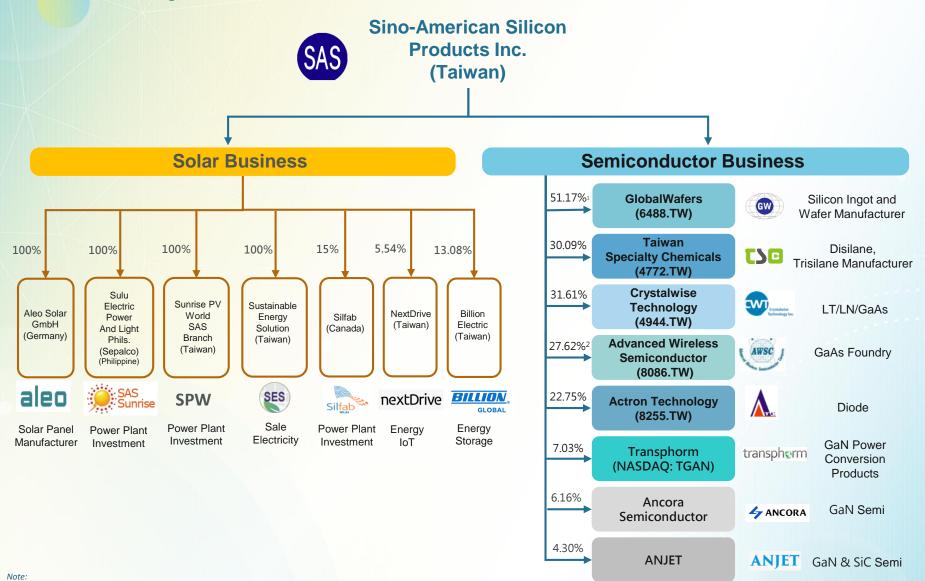


02

Company Overview

SAS Group Structure

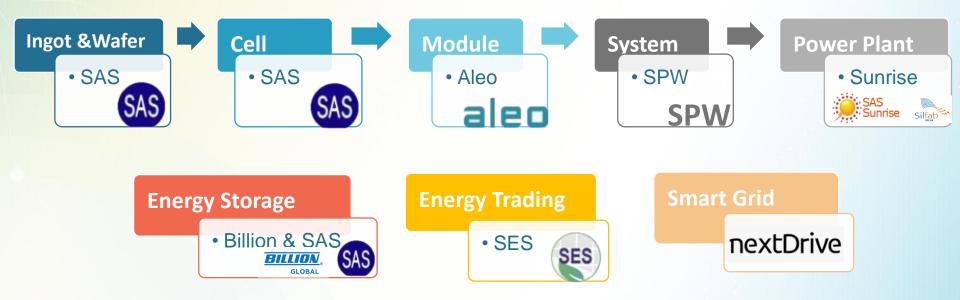




1. SAS' shareholding % of GWC: GWC shares held by SAS / GWC total outstanding shares deducting repurchased shares

SAS Deepens Its Footprint in the Green Energy Value Chain

- Vertically integrated in the solar industry, SAS is engaged in the manufacturing of ingot, wafer, cell, module, energy storage, and further spreads its tentacles into power plant O&M, green energy developing & trading, and reinvests in smart grids.
- SAS' competitive edge in vertical integration and horizontal reinvestment consolidates its positions through flexibly mobilizing the group resources and provides one-stop solution to customers.

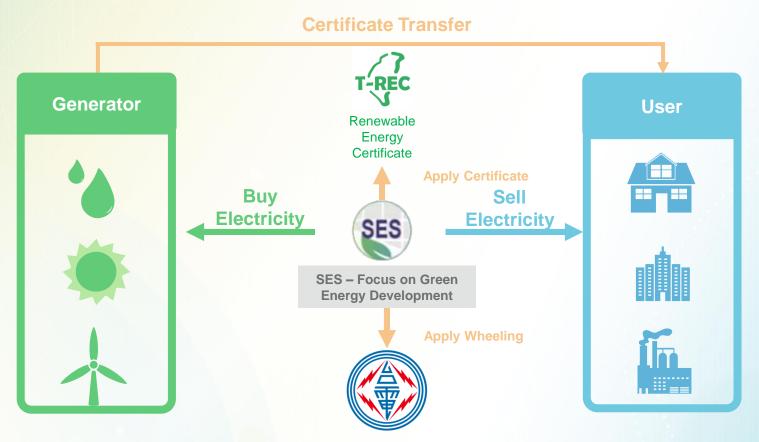


Note: Sunrise is owned by GlobalWafers

Sustainable Energy Solution Company (SES) 中美矽晶製品股份有限公司 Sino-American Silicon Products Inc.

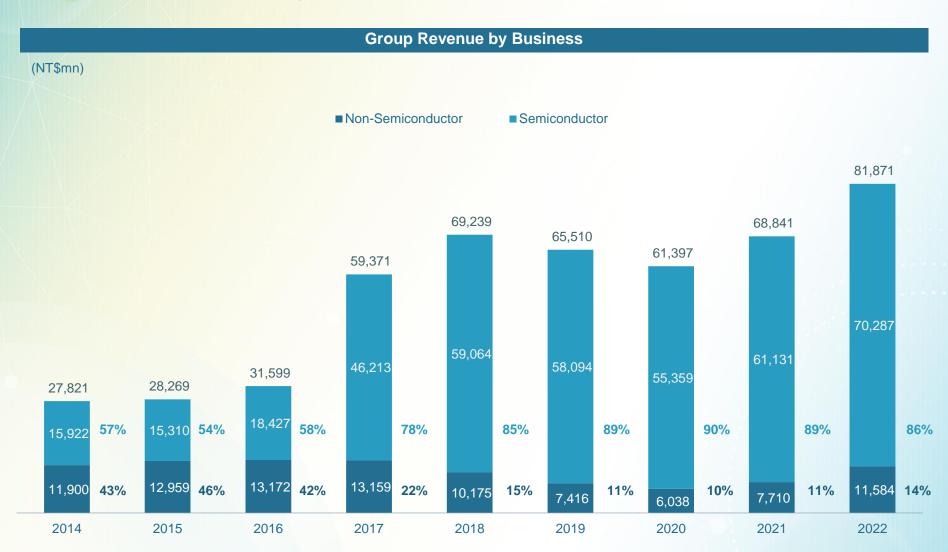
- Providing Comprehensive Green Energy Solutions

SES, SAS' subsidiary, is dedicated in green energy trading. Its comprehensive green energy solutions encompass planning and developing multiple renewable energies, aligning the needs between buyers and sellers, and building complete green energy procurement plan. SES is the great partner in the path of Corporate Social Responsibility and ESG.





Group Revenue by Business



Note:

^{1.} Non-Semiconductor revenue include revenue from subsidiaries like AWSC, TSC, etc.



03

Industry Overview

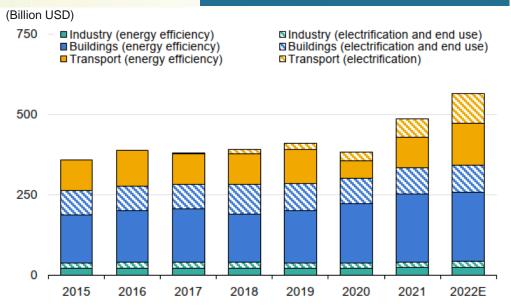


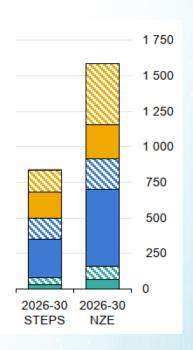
Global Energy Efficiency-Related Investment

Energy efficiency actions have accelerated globally in 2022 as governments and consumers have increasingly turned to efficiency measures as part of their responses to mend supply disruptions and record-high energy prices.

Global Energy Efficiency-Related Investment, by Scenario, 2015-2022 and Average Annual Investment, by Scenario, 2026-2030





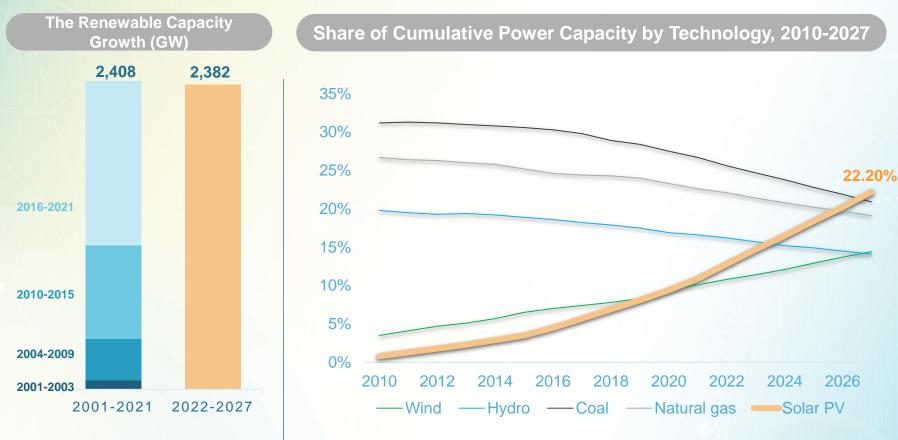


Note: STEPS = Stated Policies Scenario and NZE = Net Zero Emissions Scenario. Source: International Energy Agency, Dec, 2022.



Global Renewable Energy Trend

- The world is set to add as much renewable power in the next 5 years as it did in the past 20 years, as countries seek to take advantage of renewables' energy security benefits.
- It is believed that the renewables are on track to overtake coal as the largest source of global electricity by early 2025. Solar PV is set to be the largest source of power capacity in 2027.



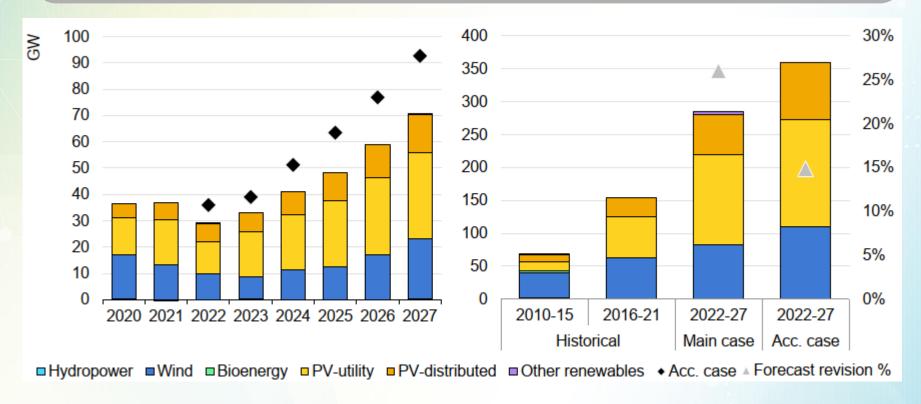
Source: International Energy Agency, Dec, 2022.



IRA Boost PV Deployment in the U.S.

- Renewable energy capacity in the United States is forecast to increase 75%, or over 280 GW from 2022 to 2027, with solar PV accounting for the most renewable expansion.
- Inflation Reduction Act incentives are expected to support the Biden Administration target of 100% carbon-pollution-free electricity by 2035.

United States Annual Renewable Capacity Additions by Technology, 2020-2027 (left) and Total Renewables Capacity Growth, 2010-2027 (right)

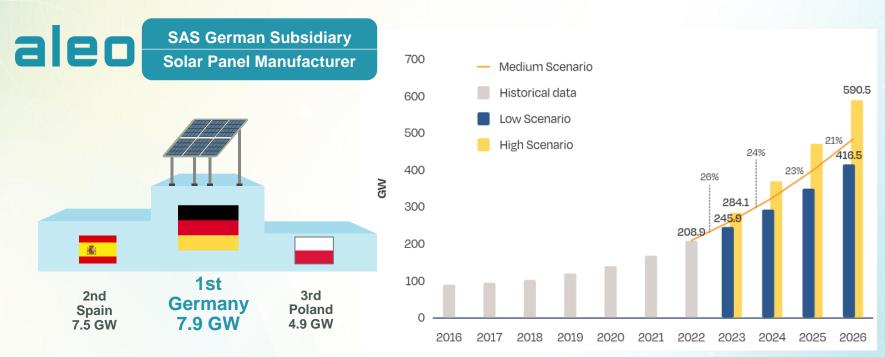




Solar Shielded Europe from the Energy Crisis

- The energy crisis, skyrocketing electricity prices, and, the underlying current geopolitical context have led to EU policymakers prioritizing the acceleration of renewables' deployment and booming the solar development.
- 2022 saw the largest ever absolute increase in solar electricity generation that mirrored the 25% rise in capacity from 168 GW to 209 GW. Germany is the Europe's biggest solar market in 2022 with 7.9 GW of newly installed capacity.

EU 27 Cumulative Solar PV Market Scenarios 2023-2026



Source: Solar Power EU, Dec 2022.& EMBER, Jan 2023.

European Solar Photovoltaic Industry Alliance

- The European Solar Photovoltaic Industry Alliance aims to build resilience and strategic autonomy for Europe's solar photovoltaic (PV) value chain.
- It will identify barriers, opportunities and investment possibilities in the solar PV value chain while also addressing circularity and sustainability and the impact on skills.

Strategy Action Plan by Solar Photovoltaic Industry Alliance

600 gw

45 %

Newly installed solar photovoltaic capacity by 2030 Raise the EU renewable energy target by 2030

Investment Opportunities

mapping investment opportunities creating project pipelines of bankable projects

Environment

Addressing barriers, support sustainability and stimulate demand

Diversify and Resilience

Diversify supplies
Build resilience in supply chain

Source: European Commission, Dec 2022.



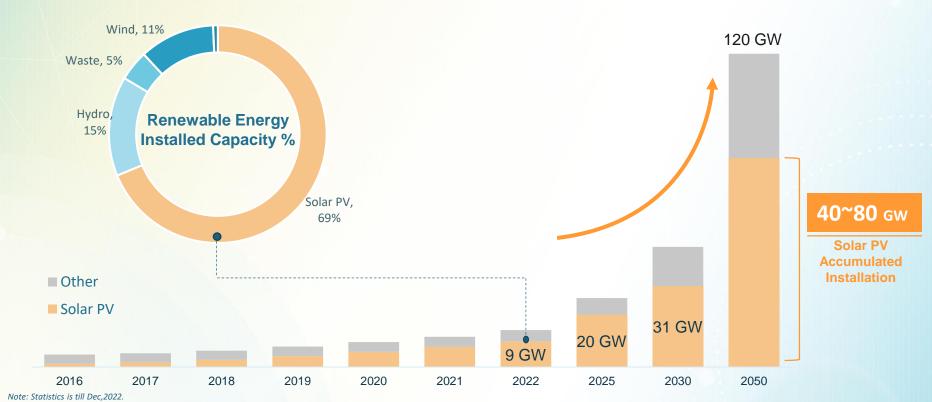
中美矽晶製品股份有限公司 Sino-American Silicon Products Inc.



Taiwan's 2050 Net-Zero Transition

- Taiwan's renewable energy installation capacity in 2022 was dominated by solar PV at 9.25GW, accounting for 69% of the total renewable energy.
- *Taiwan's 2050 Net-Zero Transition- 12 Key Strategies" sets Nationally Determined Contribution (NDC) in 2030 to expand the carbon reduction target to 24±1% (compared to 2005 baseline), planning Taiwan renewable energy capacity to reach 120 GW by 2050, in which solar will occupy 40~80 GW.

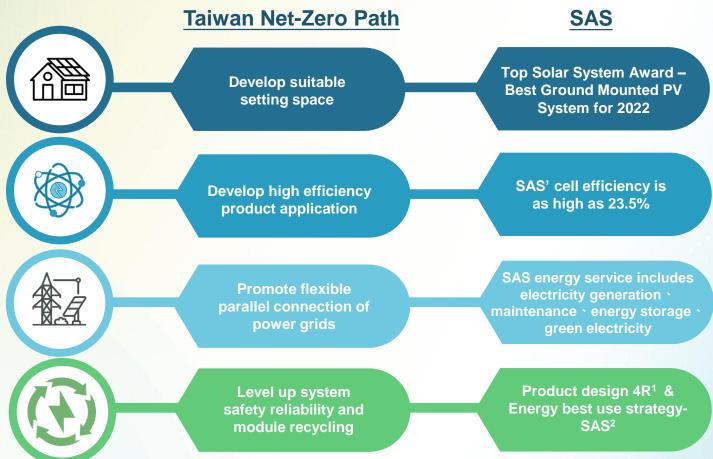




Source: Bureau of Energy Ministry of Economic Affairs, Summarized by SAS

Taiwan Solar PV Plan vs SAS Business Roadmap

To achieve the goal of solar PV installed capacity in "Taiwan's 2050 Net-Zero Transition 12 Key Strategies Action Plan", the strategies include develop suitable setting space, develop high efficiency product application, promote flexible parallel connection of power grids, level up system safety reliability and module recycling, matching SAS' business strategy.



Resource: Bureau of Energy Ministry of Economic Affairs, Summarized by SAS Note: 1. Product design 4R - Reduce, Reuse, Recycle & Redesign 2. Energy best Use strategy-5 (Safe). A (Affordable). S (Sustainable)



04

Financial Statements

Financial Highlight: Q422 vs. Q322 vs. Q421

(NT\$mn, except EPS)	Q422	Q322	Q421	QoQ	YoY
Revenue	21,205	21,626	18,084	-1.9%	17.3%
Gross Profit %	36.2%	39.5%	38.0%	-3.3%	-1.8%
Operating Income	5,732	6,658	4,982	-13.9%	15.1%
Operating Income %	27.0%	30.8%	27.6%	-3.8%	-0.6%
Net Profit	5,225	5,585	2,442	-6.4%	114.0%
Net Profit %	24.6%	25.8%	13.5%	-1.2%	11.1%
EPS	NT\$4.33	NT\$5.28	NT\$2.40	-NT\$0.95	NT\$1.93
EBITDA*1	9,746	9,197	5,666	6.0%	72.0%
EBITDA %	46.0%	42.5%	31.3%	3.5%	14.7%
EBIT	7,711	7,280	4,026	5.9%	91.5%
ROE*2 (annualized)	31.4%	36.1%	18.5%	-4.7%	12.9%
ROA*3 _(annualized)	11.2%	12.4%	6.3%	-1.2%	4.9%

^{1.} EBITDA = Net Profit + Tax + Interest Expense + Depreciation + Amortization.

^{2.} ROE = Net Profit / Average Shareholders Equity.

^{3.} ROA = (Net Profit + Interest*(1- Effective Tax Rate))/Average Asset

Financial Highlight: 2022 vs. 2021

(NT\$mn, except EPS)	2022	2021	YoY
Revenue	81,871	68,841	18.9%
Gross Profit %	39.0%	35.6%	3.4%
Operating Income	25,400	18,080	40.5%
Operating Income %	31.0%	26.3%	4.7%
Net Profit	16,160	12,615	28.1%
Net Profit %	19.7%	18.3%	1.4%
EPS	NT\$14.87	NT\$11.62	NT\$3.25
EBITDA*1	27,486	23,901	15.0%
EBITDA %	33.6%	34.7%	-1.1%
EBIT	20,196	17,390	16.1%
ROE* ² (annualized)	26.9%	24.8%	2.1%
ROA*3 _(annualized)	9.1%	9.3%	-0.2%

^{1.} EBITDA = Net Profit + Tax + Interest Expense + Depreciation + Amortization.

^{2.} ROE = Net Profit / Average Shareholders Equity.

^{3.} ROA = (Net Profit + Interest*(1- Effective Tax Rate))/Average Asset



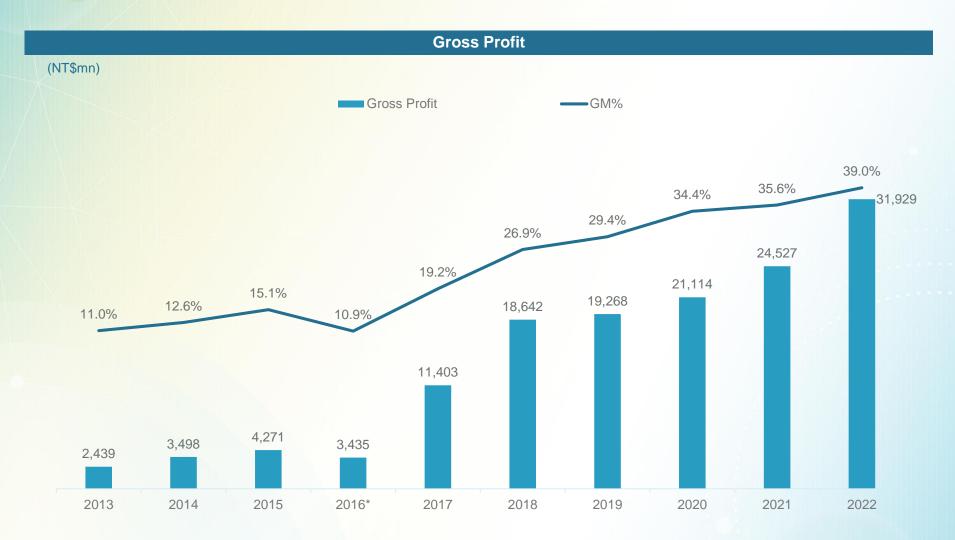
Revenue



^{1.} Upon completion of GWC's acquisition of SunEdison Semiconductor ("SEMI") in 2016, FY2016 financials has included earnings from SEMI from the period of 02 Dec 2016 – 31 Dec 2016.



Gross Profit



^{1.} Upon completion of GWC's acquisition of SunEdison Semiconductor ("SEMI") in 2016, FY2016 financials has included earnings from SEMI from the period of 02 Dec 2016 – 31 Dec 2016.



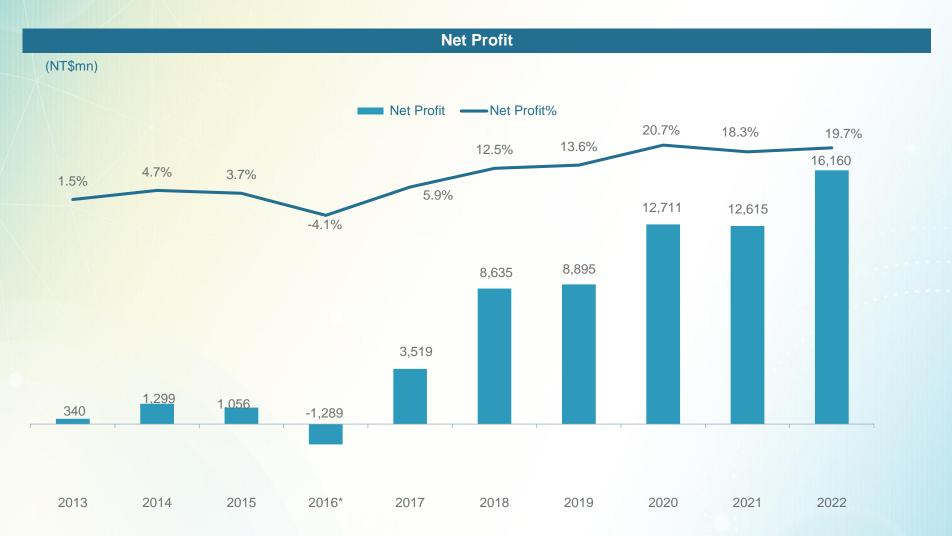
Operating Income



^{*} Upon completion of GWC's acquisition of SunEdison Semiconductor ("SEMI") in 2016, FY2016 financials has included earnings from SEMI from the period of 02 Dec 2016 – 31 Dec 2016.



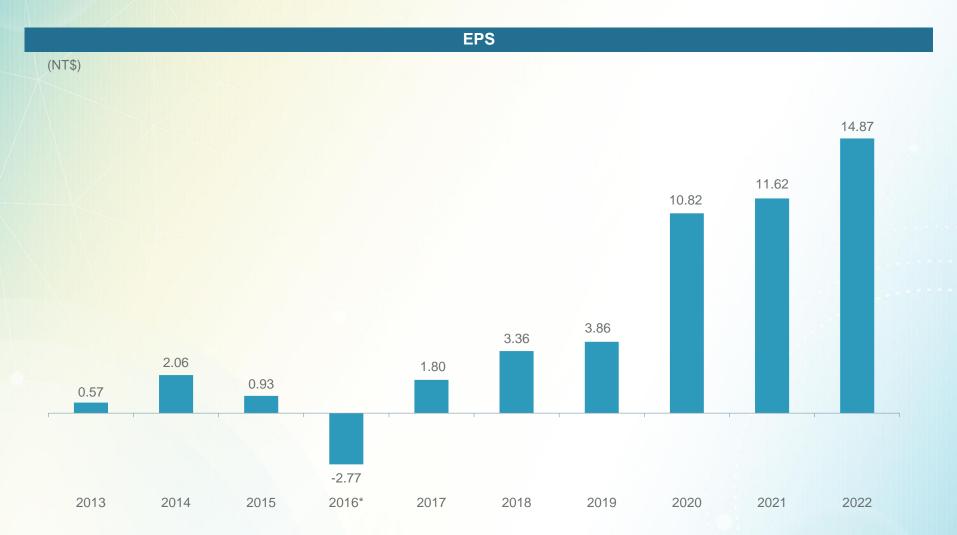
Net Profit



^{*} Upon completion of GWC's acquisition of SunEdison Semiconductor ("SEMI") in 2016, FY2016 financials has included earnings from SEMI from the period of 02 Dec 2016 – 31 Dec 2016.







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Income Statement

Income	Statement				
(NT\$mn)		2019	2020	2021	2022
Revenue		65,510	61,397	68,841	81,871
	Growth (%)	-5.4%	-6.3%	12.1%	18.9%
Gross Profi	it	19,268	21,114	24,527	31,929
	Gross Profit Margin (%)	29.4%	34.4%	35.6%	39.0%
EBITDA		18,712	22,232	23,901	27,486 ²
	EBITDA Margin (%)	28.6%	36.2%	34.7%	33.6%
Operating F	Profit	13,515	14,932	18,080	25,400
	Operating Profit Margin (%)	20.6%	24.3%	26.3%	31.0%
Profit befor	e Tax	13,924	16,238	17,206 ¹	20,829 ²
	Profit before Tax Margin (%)	21.3%	26.4%	25.0%	25.4%
Net Profit		8,895	12,711	12,615	16,160 ²
	Net Profit Margin (%)	13.6%	20.7%	18.3%	19.7%
EPS (NT\$)		3.86	10.82	11.62	14.87 ²

Due to NT\$1.6 billion (EUR 50 million) of termination fee from Siltronic M&A recognized by the subsidiary, GlobalWafers.
 Due to realized loss of Siltronic shares measured at fair value through profit or loss and impacts from other factors to the subsidiary, GlobalWafers.



Balance Sheet

Balance	Sheet				
(NT\$mn)		2019	2020	2021	2022
Assets					
	Cash and cash equivalents	34,901	23,813	67,118	83,248
	Account receivable	8,507	8,407	9,889	11,338
	Inventories	7,398	7,929	8,646	10,790
	Property, plant and equipment	40,277	42,455	40,428	51,866
	Other assets	18,300	27,349	41,170	39,368
Total assets		109,383	109,953	167,251	196,609
<u>Liabilities</u>					
	Short-term loan	11,465	10,804	7,791	9,831
	Account payable	4,180	4,204	4,586	5,130
	Long term loan	0	1,048	46,124	43,648
	Other liabilities	45,123	44,227	56,588	69,868
Total liabiliti	es	60,767	60,283	115,088	128,478
Shareholder	equity	48,616	49,669	52,163	68,132



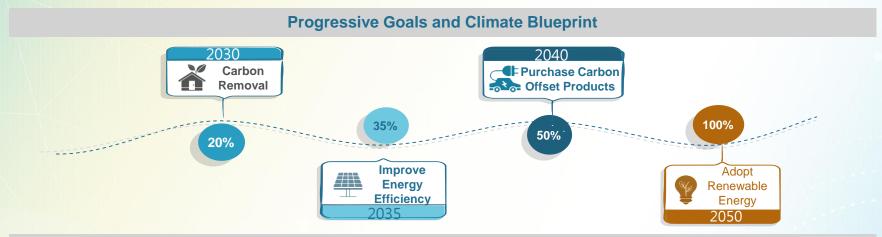
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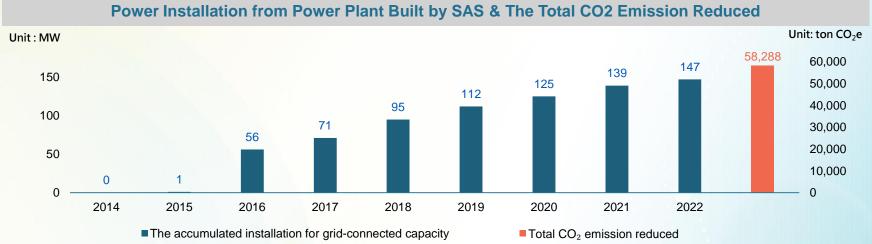
ESG Highlights



Sustainable Environment - Committed to Green Energy

- ➤ To support Taiwan to reach net zero emissions by practical actions, SAS commits to achieving 100% renewable energy usage over all of group's global operation bases by 2050.
- As of Dec 2022, SAS' cumulative solar capacity reached 147 MW, equivalent to reducing 58,288 tons of CO₂ emissions.







Corporate Governance

- SAS is dedicated to achieving corporate governance and fulfills its social responsibility. With this determination, SAS has been awarded top 5% corporate governance among all Taiwan listed companies for 8 consecutive years!
- The gender, tenure, and expertise diversity as well as the independence of the board directors are the guidance for SAS to nimbly navigate in the competitive industry.

Corporate Governance Efforts

TOP 5% Corporate Governance Evaluation



Consecutive honored with top 5% Eighth Corporate Governance Evaluation

Selected in the 2022 Taiwan Best-in-Class 100



Based on the three criteria of market, fundamentals and sustainability, the top 100 foreign investment companies were selected from the perspective of international institutions and legal persons.

3 Independent Directors



Among 10 directors, 3 seats are independent directors, bringing balance and new perspective to the board.

Board & CPA Evaluation



SAS annually evaluates independence and performance of the board and CPA and discloses publicly on the company website.

Functional Committees



Audit Committee, Remuneration Committee, Nominating Committee, and Sustainability Development Committee are established to enhance independence and CSR responsibility.



Sustainable Environment

- SAS' solar cell eclipses other competitors and successfully passes the reliability test which is more stringent than IEC (International Electrotechnical Commission) and IS awarded "Taiwan Excellent PV Award" by the Energy Bureau of the Ministry of Economic Affairs.
- Sunrise PV Four Co., Ltd, a subsidiary within the SAS Group, is awarded the "Top Solar System Award Best Ground Mounted PV System for 2022" by the Energy Bureau of the Ministry of Economic Affairs. The design and the construction of the PV system located in SAS YiLan factory fulfill the eco-balance between green energy and the environment. Its annual generation surpasses the site's annual power consumption, showing that YiLan site could be powered by 100% renewable energy.

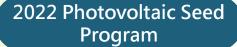






Sustainable Environment - Volunteering and Promotion

- SAS and its subsidiary, GlobalWafers, held beach cleaning event along the coastline of Zhunan Long Fong Port (Miaoli, Taiwan) to raise awareness in marine pollution. Total 174 employees and their families volunteered and cleaned out nearly 600 kg of waste.
- SAS launched the Photovoltaic Seed Program, hoping that photoelectric education can take root from an early age. The goal is to give children a correct understanding of solar photovoltaics as a safe, affordable, and sustainable clean energy via story discussions and practice what they have learned in life.



2022 Beach Cleaning





Employee Welfare

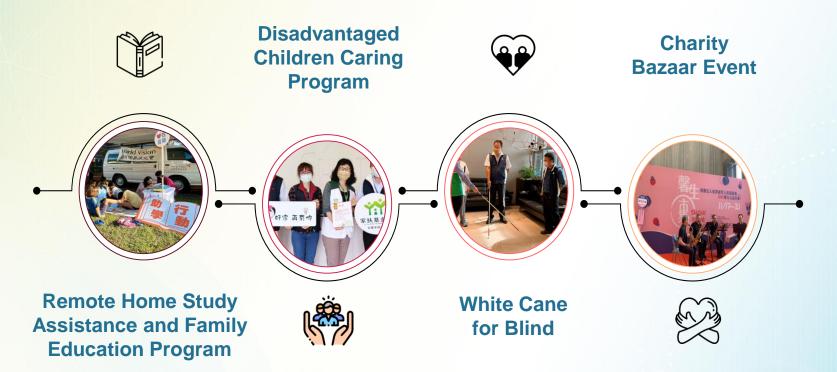
- > SAS encourages employees to receive vaccination, regularly updates the epidemic footprint for public health and secures stable operation within the Group.
- > By collaborating with Employee Assistance Program Service Center (EPAC), SAS provides hotline for employees' psychological counseling to build a comforting supporting system.
- > SAS regularly publishes legal articles to enhance employees' legal awareness and literacy.





Social Concern - Summary

- By practicing the spirit of altruism and social care, SAS and its subsidiaries in Taiwan can strengthen the core literacy values of respect for human dignity, social justice, responsibility, privacy, and authority and continue to internalize social care activities.
- In 2022, the activities include, "Remote Home Study Assistance and Family Education Program, "Disadvantaged Children Caring Program", "White Cane for Blind", "Charity Bazaar Event", "Angel Family Stress Relieve Event", etc.





06

GlobalWafers





Income Statement

Income S	statement				
(NT\$mn)		2019	2020	2021	2022
Revenue		58,094	55,359	61,131	70,287
	Growth (%)	-1.6%	-4.7%	10.4%	15.0%
Gross Profit		22,847	20,568	23,286	30,342
	Gross Profit (%)	39.3%	37.2%	38.1%	43.2%
EBITDA		22,648	21,967	22,507	25,526 ¹
	EBITDA (%)	39.0%	39.7%	36.8%	36.3%
Operating Inc	come	17,897	15,287	17,693	24,983
	Operating Income (%)	30.8%	27.6%	28.9%	35.5%
Profit before	Тах	18,554	16,615	16,445	20,107 ¹
	Profit before Tax Margin (%)	31.9%	30.0%	26.9%	28.6%
Net Profit		13,636	13,104	11,870	15,367 ¹
	Net Profit (%)	23.5%	23.7%	19.4%	21.9%
EPS (NT\$)		31.35	30.11	27.27	35.31 ¹

^{1.} Due to realized gains/loss of Siltronic shares measured at fair value through profit or loss and impacts from other factors.





Balance Sheet

Balance SI	neet				
(NT\$mn)		2019	2020	2021	2022
<u>Assets</u>					
	Cash and cash equivalents	32,822	22,439	65,894	80,491 ¹
	Account receivable	8,140	8,037	9,118	10,160
	Inventories	6,849	7,208	7,295	8,535
	Property, plant and equipment	34,697	37,111	33,943	39,487
	Other assets	14,078	20,056	34,395	30,823
Total assets		96,586	94,852	150,645	169,496
<u>Liabilities</u>					
	Short-term loan	9,886	9,871	6,264	6,544
	Account payable	3,837	3,895	4,340	4,176
	Long term loan	-	-	45,125	42780
	Other liabilities	37,789	36,930	49,284	61,672
Total liabilitie	s	51,513	50,697	105,013	115,172
Shareholder e	equity	45,073	44,155	45,632	54,324

^{1.} Increase in LTA prepayment and EBITDA



Q&A





Thank You



Learn More on Our Website