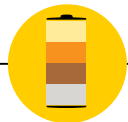




碩禾電子材料股份有限公司
GIGA SOLAR MATERIALS CORP.

碩禾電子材料股份有限公司 2024Q2 法人說明會



2024-9



Disclaimer

- The statements of GSMC' s current expectations included in this presentation are forward-looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in these forward-looking statements.
- GSMC undertakes no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.



AGENDA

- **基本資訊 Basic Information**
- **市場概覽 Market**
- **營運成果 Financial Results**
- **未來產品展望 Products Outlook**

1

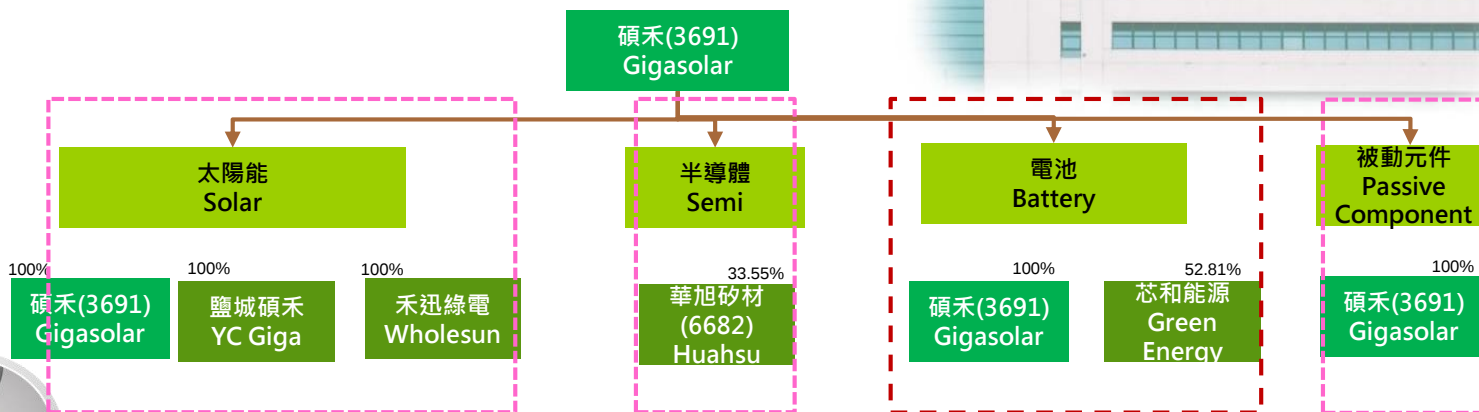
基本資訊 Basic Information

-碩禾事業體



碩禾概覽Basic Info

- 碩禾主要從事太陽能導電漿料(Solar Paste)及電池材料(Battery Materials)之研發、生產及銷售
- 其他業務包含太陽能電廠(Solar Farm)、矽材(Poly-Silicon)、半導體(Semi)及特用膠材(Speciality Paste)等材料業務



Confidential

- 太陽能導電漿料(Solar Paste)業務佔碩禾約90%營收(90% of Sales)
- 提供太陽能電池製造商客製化之太陽能導電漿料以增加太陽能電池效能
- 主要產品包括提供太陽能電池之正面銀漿及背面銀漿(Front and Rear side silver paste)

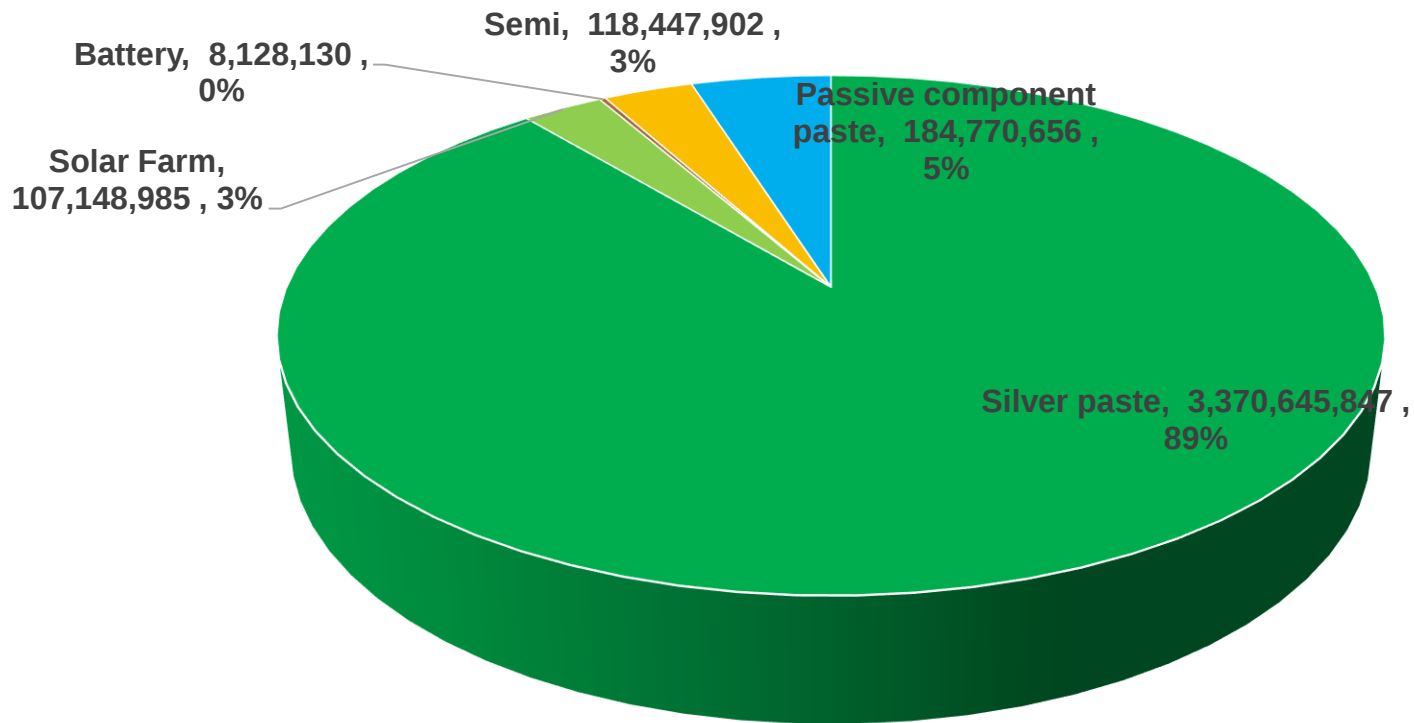
- 華旭(Huahsu)主要營收項目:太陽能矽輔料(Poly-Silicon)、半導體晶圓再生(Reclaim wafer)之處理與銷售及第三代半導體切片(SiC Slicing)

- 碩禾電池材料研發深耕十年
- 提供電池之正極及負極材料(Anode& Cathode)
- 主要產品包括LFP、SiO、Binder等





2024H1 Revenue-(NT 9+B/year)



■ Silver paste ■ Solar Farm ■ Battery ■ Semi ■ Passive component paste

2

市場概覽

Market



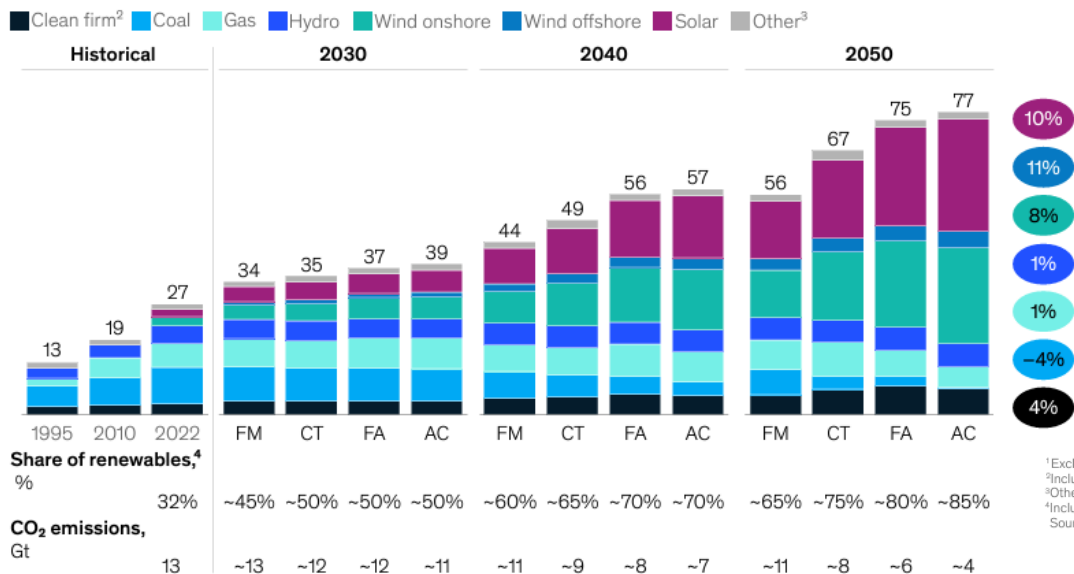
麥肯錫(McKinsey & Company)公司發布《全球能源視角 2023》(Global Energy Perspective 2023)

Renewable energy sources are expected to provide between 45 and 50 percent of global generation by 2030, and between 65 and 85 percent by 2050. In all scenarios, **solar is the biggest contributor of renewable energy**, followed by wind.

The share of renewables in the power mix could more than double in the next 20 years

Global power generation,
thousand TWh¹

CT CAGR
22–25



¹Excludes generation from storage (pumped hydro, batteries, LDES).

²Includes gas and coal plants with CCUS, nuclear, and hydrogen.

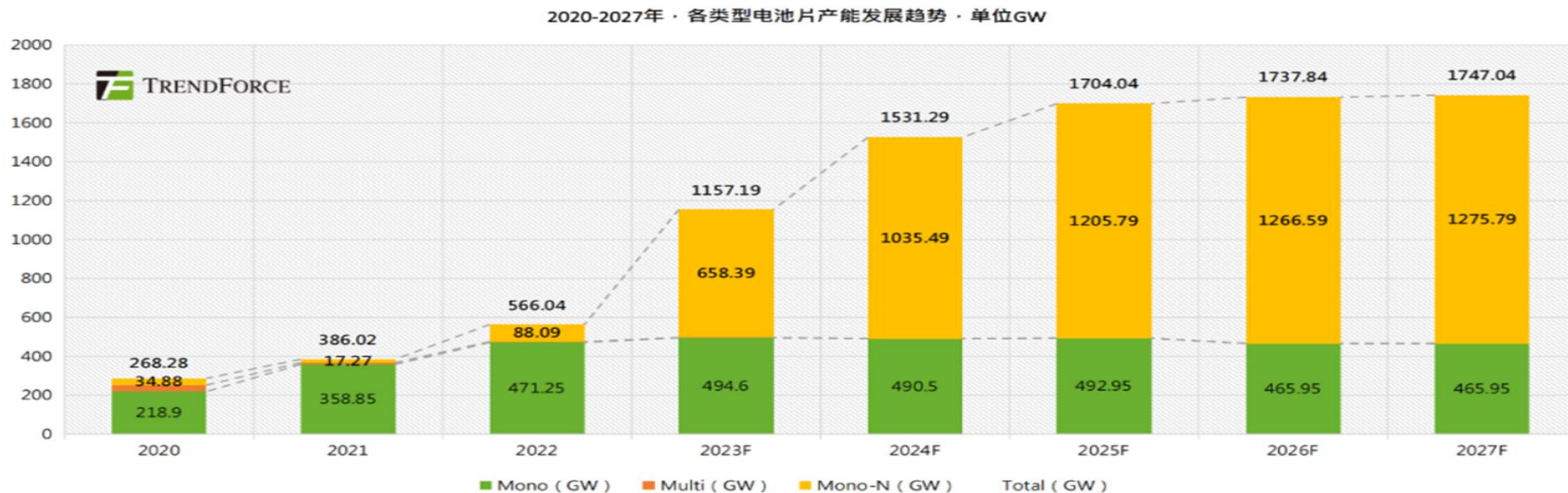
³Other includes bioenergy (with and without CCUS), geothermal, hydrogen-fired gas turbines, and oil.

⁴Includes solar, wind, hydro, biomass, BECCS, geothermal, and marine and hydrogen-fired gas turbines.

Source: McKinsey Energy Solutions' Global Energy Perspective 2023; McKinsey Power Model



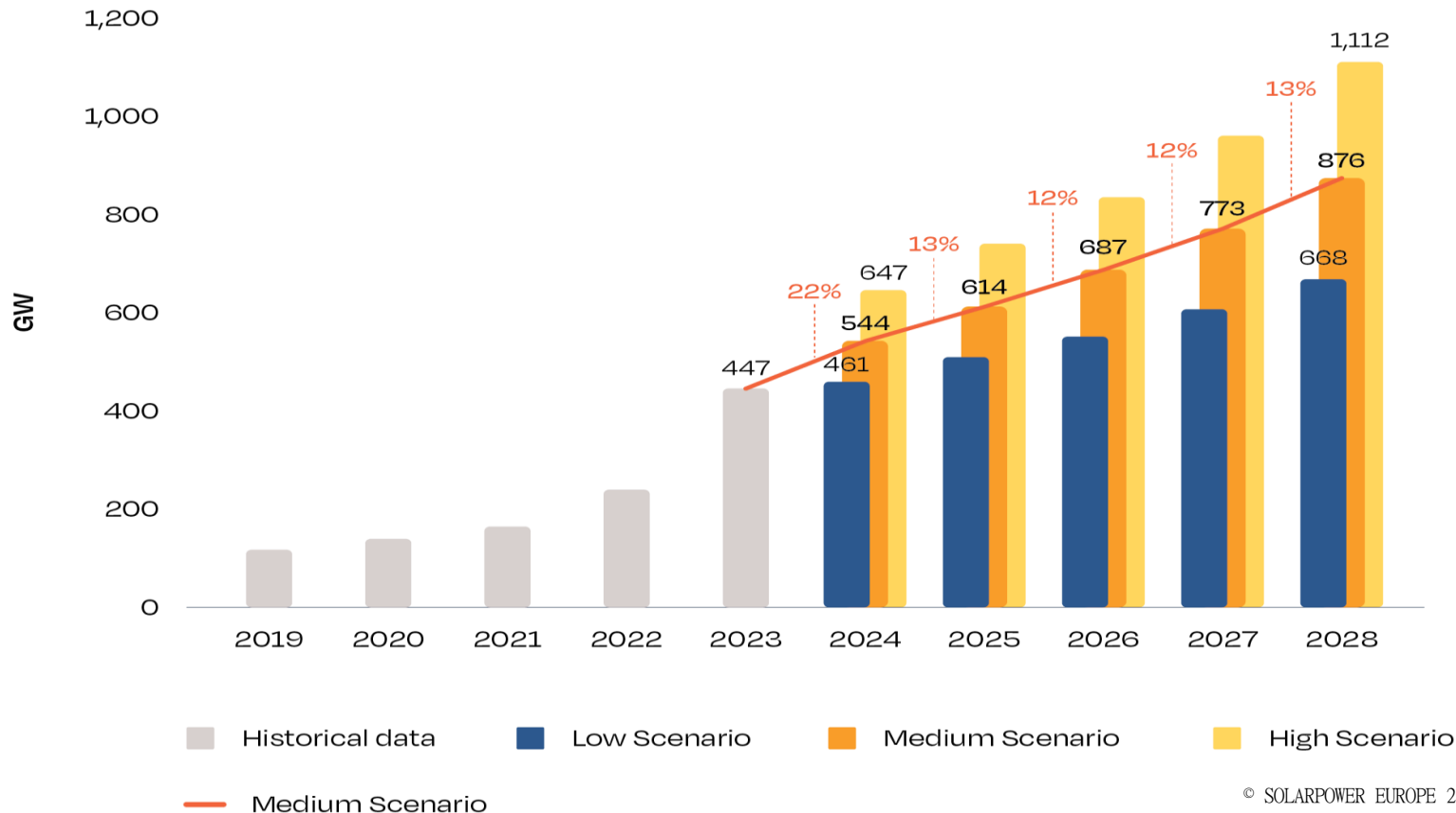
TrendForce 預期太陽能供應量增長(PV supply still rising)





預期太陽能需求增長(Demand growth for PV power)

WORLD ANNUAL SOLAR PV MARKET SCENARIOS 2024-2028



3

營運成果 Financial Results



2024年上半年合併綜合損益表與去年同期比較

(新台幣仟元)

科 目	24H1	%	23H1	%	YoY
營業收入淨額	3,789,037	100%	1,332,969	100%	2,456,068
營業毛利(損)	226,727	6%	(127,513)	-10%	354,240
營業淨利(損)	(170,619)	-5%	(514,792)	-39%	344,173
營業外收入及支出	120,395	3%	(31,284)	-2%	151,679
稅前淨利(損)	(50,224)	-1%	(546,076)	-41%	495,852
本期淨利 (損)	(79,931)	-2%	(556,384)	-42%	476,453
淨利(損)歸屬母公司	30,282	1%	(350,606)	-26%	380,888
淨利(損)歸屬非控制	(110,213)	-3%	(205,778)	-15%	95,565
每股盈餘(損失)(NT\$)	0.33		(3.82)		



2024年第2季合併綜合損益表與前期比較

(新台幣仟元)

科 目	24Q2	%	24Q1	%	QoQ
營業收入淨額	2,268,725	100%	1,520,312	100%	748,413
營業毛利(損)	138,603	6%	88,124	6%	50,479
營業淨利(損)	(80,624)	-4%	(89,995)	-6%	9,371
營業外收入及支出	13,274	1%	107,121	7%	(93,847)
稅前淨利(損)	(67,350)	-3%	17,126	1%	(84,476)
本期淨利 (損)	(90,327)	-4%	10,396	1%	(100,723)
淨利(損)歸屬母公司	(15,745)	-1%	46,027	3%	(61,772)
淨利(損)歸屬非控制	(74,582)	-3%	(35,631)	-2%	(38,951)
每股盈餘(損失)(NT\$)	(0.17)		0.50		



2024年上半年產品別資訊

(新台幣仟元)

	100% owned by Giga			52.81%	33.55%	
	<u>漿料</u> Paste	<u>電站</u> Solar farm	<u>負極材料</u> Anode	<u>正極材料</u> Cathode	<u>半導體</u> Semi	<u>合併</u> Consolidated
營業收入	3,555,312	107,149	1,829	6,299	118,448	3,789,037
營業成本	3,287,452	47,847	31,313	31,288	164,411	3,562,310
營業毛利(損)	267,860	59,302	(29,484)	(24,988)	(45,963)	226,727
毛利率	7.53%	55.35%	-1612.06%	-396.69%	-38.80%	5.98%
營業費用	254,415	19,414	19,787	20,350	83,379	397,346
營業淨利(損)	13,445	39,888	(49,271)	(45,338)	(129,343)	(170,619)
本期純損				(54,195)	(114,378)	(79,931)
-母公司(損)益						30,282
-非控制(損)益						(110,213)
註：長投(損)益		37,199		(28,866)	(47,048)	



2024.6.30合併資產負債表與上季比較

(新台幣仟元)

科 目	2024.6.30	%	2024.3.31	%	QoQ%
流動資產	6,519,610	46.52%	5,286,295	41.06%	23.33%
非流動資產	7,495,273	53.48%	7,588,305	58.94%	-1.23%
資產總計	14,014,883	100.00%	12,874,600	100.00%	8.86%
流動負債	4,514,142	32.21%	3,524,425	27.38%	28.08%
非流動負債	2,150,827	15.35%	1,906,255	14.81%	12.83%
負債合計	6,664,969	47.56%	5,430,680	42.18%	22.73%
權益合計	7,349,914	52.44%	7,443,920	57.82%	-1.26%



2023年上半年合併現金流量表與去年同期比較

(新台幣仟元)

項 目	1H24	1H23
期初現金及約當現金餘額	2,076,963	2,781,496
營業活動之淨現金流入(出)	(1,760,908)	(54,751)
投資活動之淨現金流入(出)	(991,338)	(138,945)
籌資活動之淨現金流入(出)	2,688,244	(2,322)
匯率變動之影響	34,932	5,348
期末現金及約當現金餘額	2,047,893	2,590,826



重要財務指標

項 目	1H24	1H23
負債占資產比率	47.55	26.36
流動比率	144.42	355.27
速動比率	102.83	270.32
平均收現日數	76.84	100.27
平均售貨日數	74.33	115.50

4

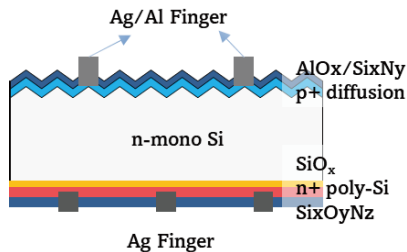
未來產品展望

Products Outlook



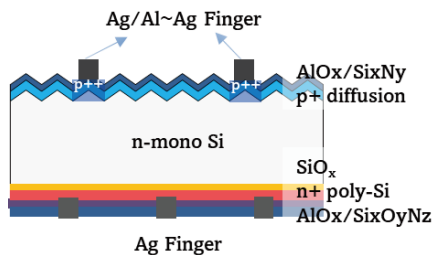
N型高效電池技術

- 常規TOPCon
- 銀鋁膠
- 細線,低接觸電阻
- N+ poly 100-130nm



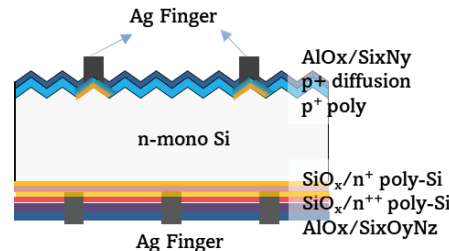
Eff > 26%

- LECO 搭配 SE /非 SE
- 純銀膠
- 低腐蝕,低複合
- N+ poly <100 nm

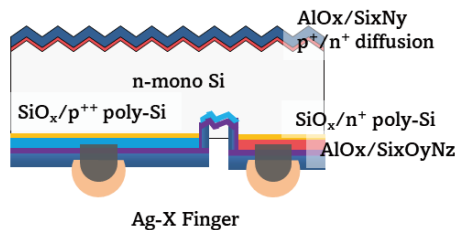


Eff > 26.5%

- 雙面Poly (POLO)
- 正面poly finger, 背面全鈍化
- 細線印刷 < 12um



- BC 全背接觸
- OBB
- 細線印刷



Eff > 27%



產品開發路線

Roadmap		Product	2022	2023	2024	2025
N-type	Topcon	Front-Silver				
		Rear-Silver				
		Busbar				
		TBC				

N型漿料開發重點

1. LECO正背面細柵/主柵
2. TBC N、P區漿料
3. HJT 低溫漿料



Thanks!

Any **questions** ?