

Toyo Tanso Co., Ltd.

Results for the First Half of the Fiscal Year Ending December 31, 2024

August 20, 2024
Toyo Tanso Co., Ltd.

Summary of Results for the First Half of the Fiscal Year Ending December 31, 2024

1. Results for the First Half of the Fiscal Year Ending December 31, 2024

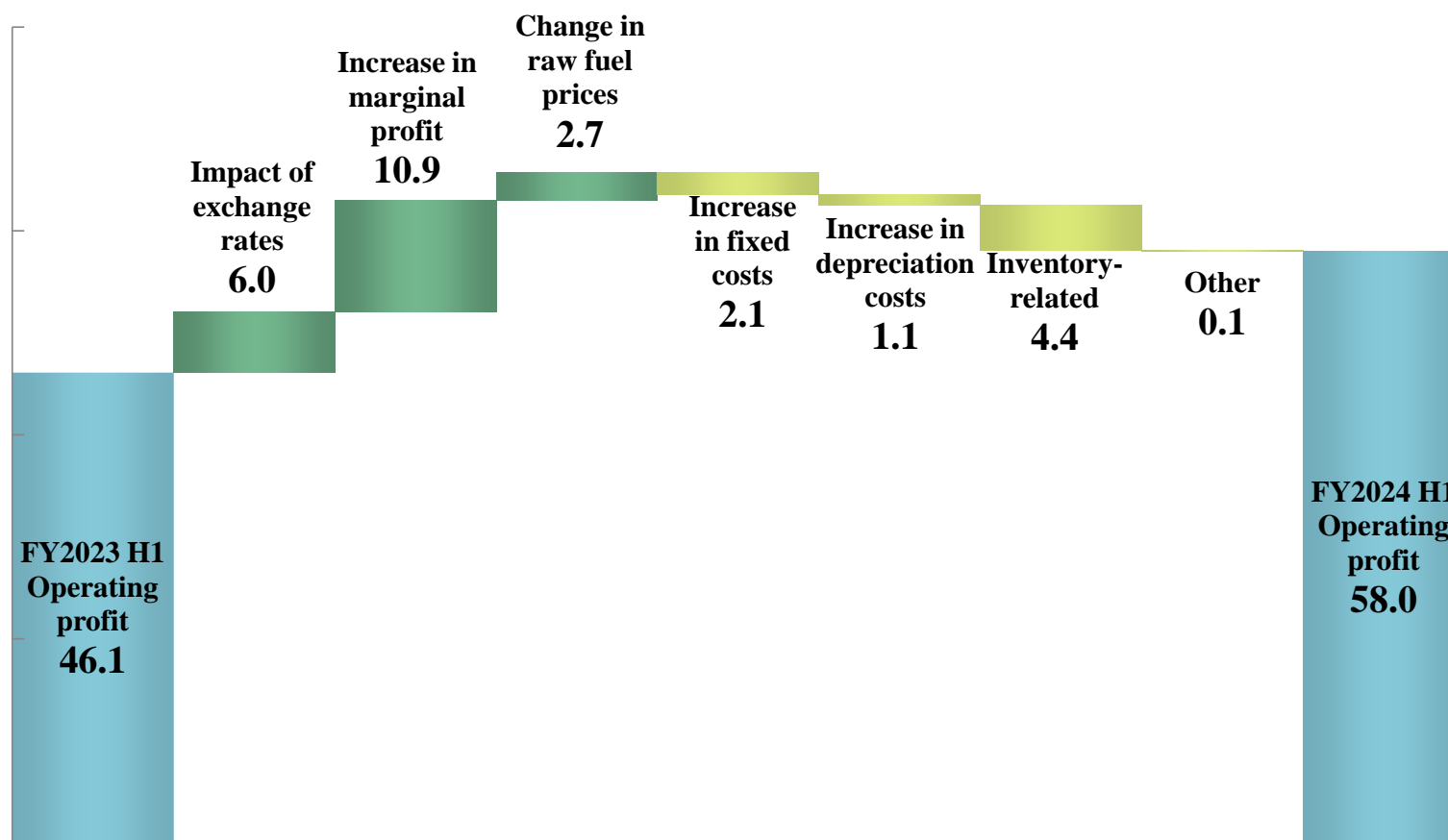
	FY2023 H1	FY2024 H1			
		(F)	(A)	Year-on-year change	Versus forecasts
(Unit: Yen, millions)					
Net sales	23,712	25,500	26,284	+ 2,571 / + 10.8 %	+ 784 / + 3.1 %
Operating profit	4,610	5,100	5,808	+ 1,197 / + 26.0 %	+ 708 / + 13.9 %
(Ratio of operating profit to net sales)	19.4%	20.0%	22.1%		
Ordinary profit	5,338	4,800	6,994	+ 1,656 / + 31.0 %	+ 2,194 / + 45.7 %
(Ratio of ordinary profit to net sales)	22.5%	18.8%	26.6%		
Profit attributable to owners of parent	4,128	3,500	5,156	+ 1,028 / + 24.9 %	+ 1,656 / + 47.3 %
Basic earnings per share (yen)	196.85	166.89	245.89		
Exchange rate	134.8 yen/\$ 145.8 yen/€ 19.5 yen/CNY	135 yen/\$ 149 yen/€ 19 yen/CNY	152.3 yen/\$ 164.6 yen/€ 21.1 yen/CNY		

2. Factors Affecting Changes in Operating Profit

(first half of fiscal year ended December 2023 vs. first half of fiscal year ending December 2024)

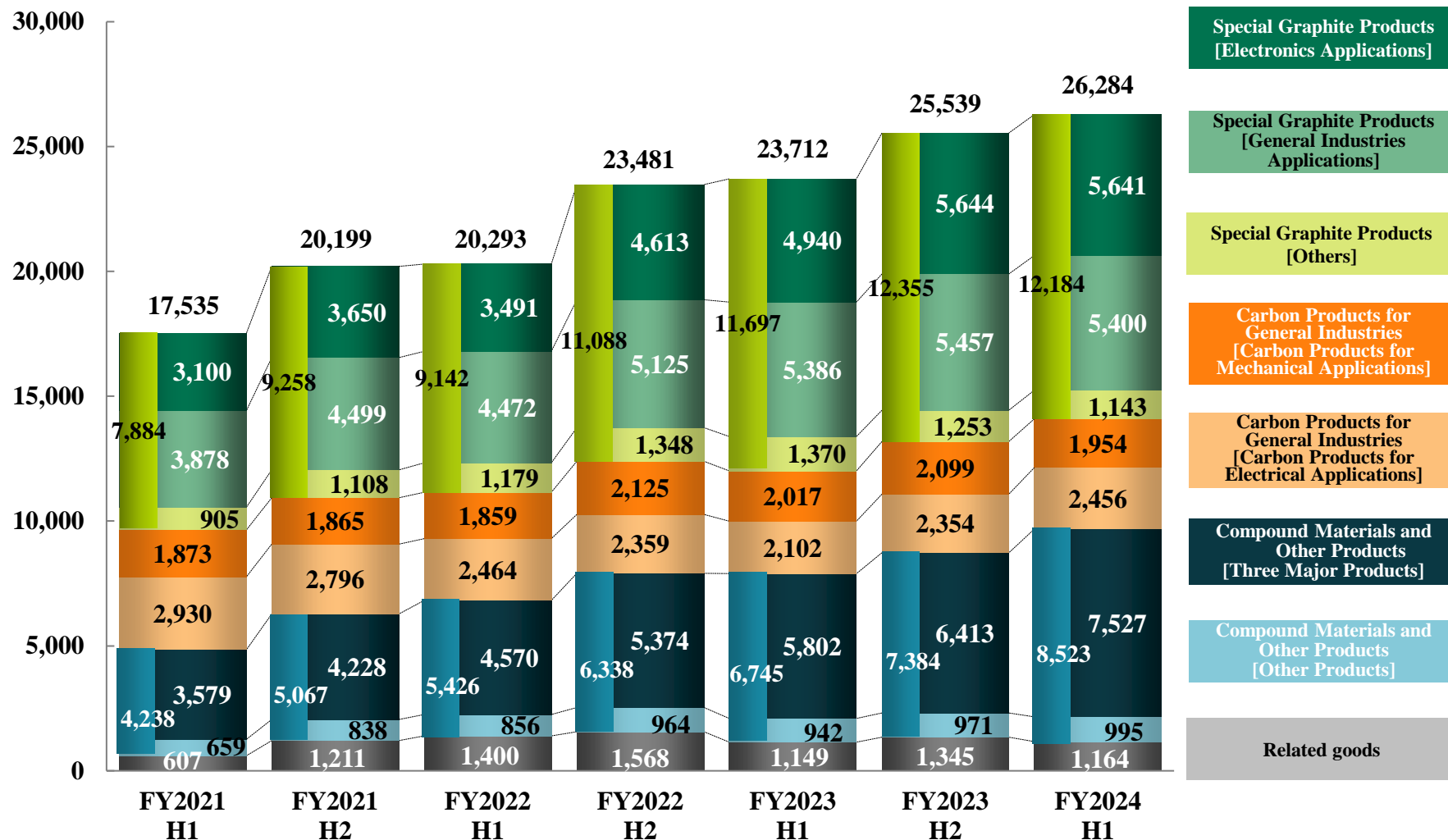
- ✓ Operating profit increased by 26.0% year on year due to the boost to sales provided by the weaker yen and an increase in marginal profit (volumes, product mix, and price pass-on), despite an increase in the unrealized gain on inventories due to the depreciation of the yen

(Unit: Yen, 100 millions)



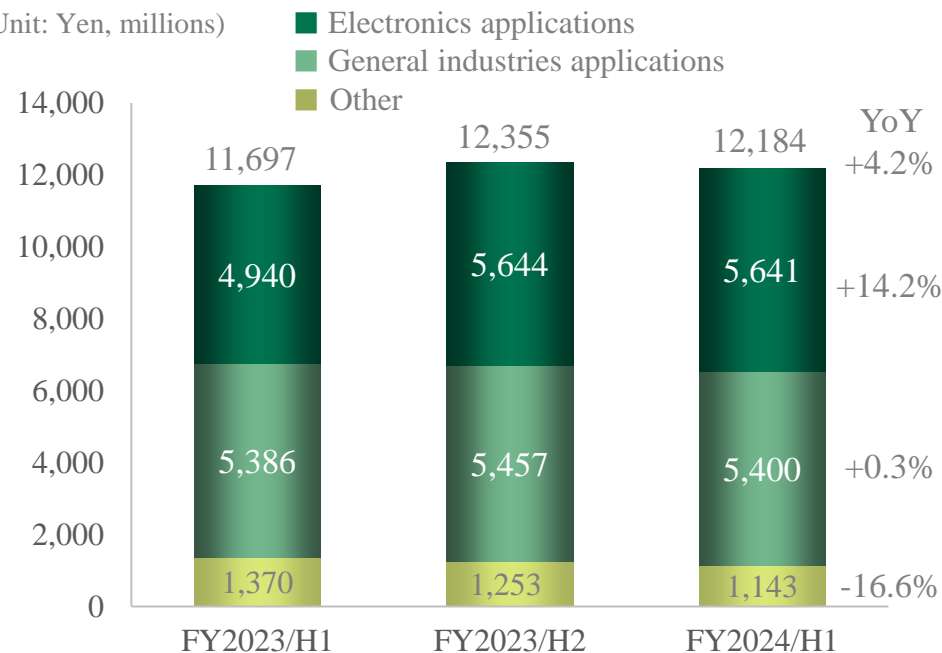
3. Net Sales by Product and Segment

(Unit: Yen, millions)

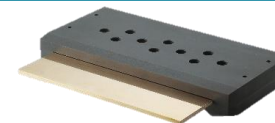


3. Net Sales by Product and Segment: Special Graphite Products

(Unit: Yen, millions)



Dies for continuous casting



Devices for single-crystal silicon manufacturing



Components for SiC crystal growth



EDM electrodes

[Electronics applications]

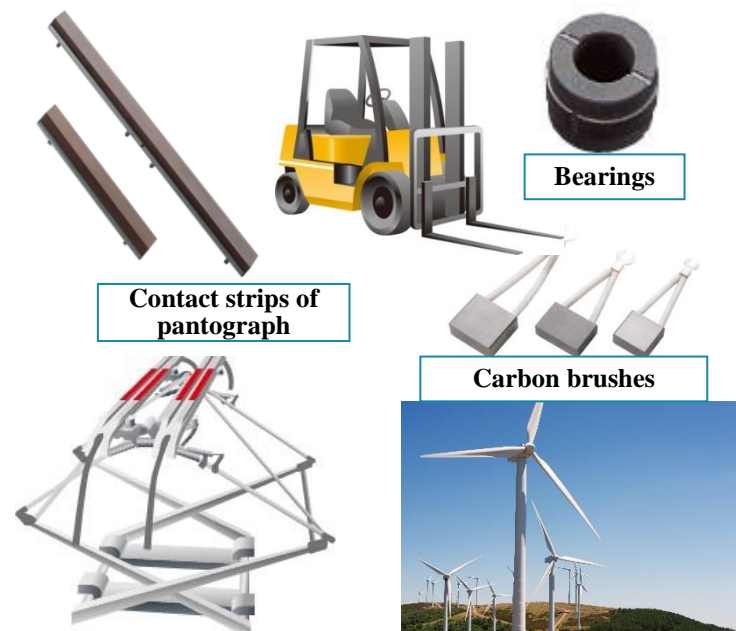
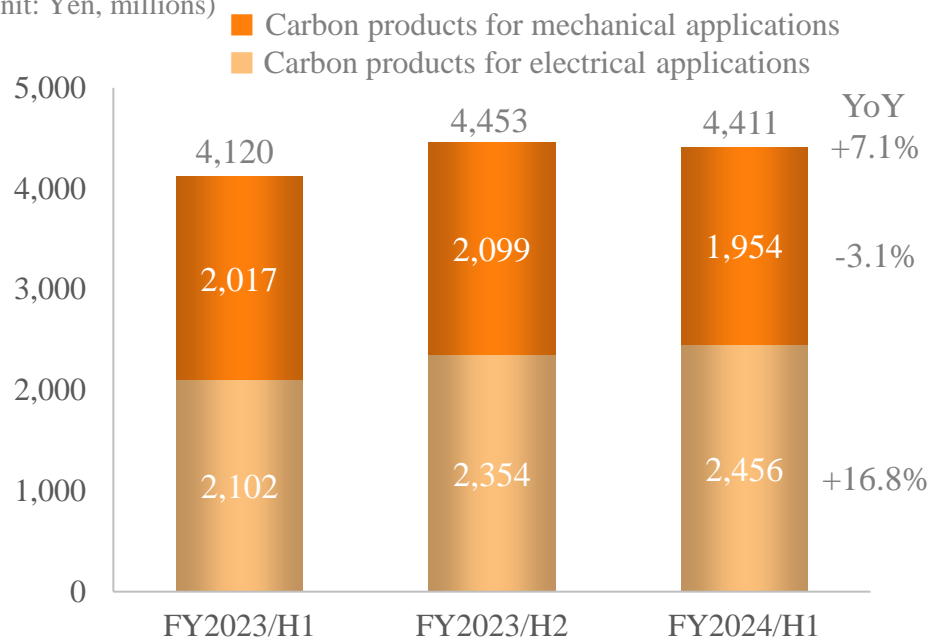
- Although sales of products for single-crystal silicon manufacturing applications were down slightly year on year due to the impact of wafer inventory adjustments, the decline was not as severe as anticipated and sales substantially exceeded the initial forecast.
- Sales of products for compound semiconductor manufacturing applications increased significantly year on year, setting a new record high, despite sales for SiC wafers falling short of the forecast due to the impact of a market slowdown.
- Sales of products for solar cell manufacturing applications decreased year on year with volumes suppressed through selective order acceptance.

[General industries applications]

- Solid demand continued for products for metallurgical applications such as continuous casting applications and industrial furnace applications, as well as EDM electrode applications, driven by steady operations in automotive industries and corporate capital investment, and sales remained at a high level.

3. Net Sales by Product and Segment: Carbon Products for General Industries

(Unit: Yen, millions)



[Carbon products for mechanical applications]

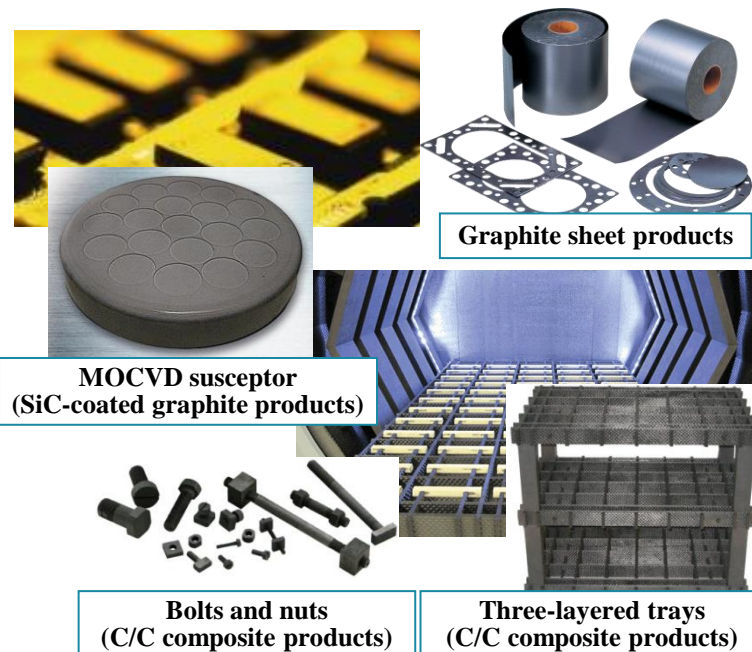
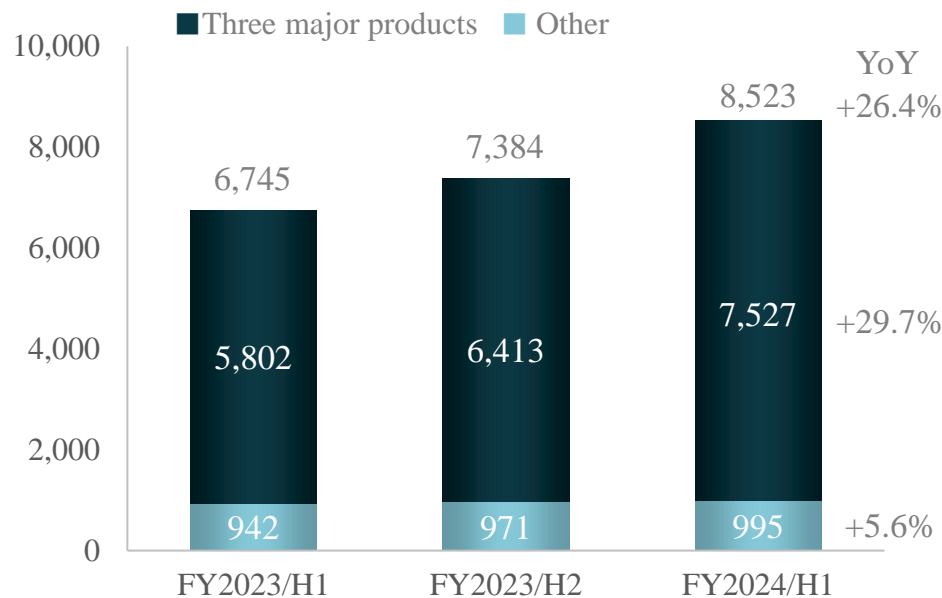
- Demand was strong for sealing rings and contact strips of pantograph, with new application development also progressing smoothly. This compensated for the absence of the projects completed in the previous fiscal year, with sales falling only slightly year on year.

[Carbon products for electrical applications]

- Products for compact motors for home appliances experienced a continued recovery in demand, albeit moderate, with the completion of customer inventory adjustments.
- For large-motor applications, we continued to focus on developing applications for wind power generators and other industrial machinery, utilizing our high-quality products and advanced engineering capabilities.

3. Net Sales by Product and Segment: Compound Materials and Other Products

(Unit: Yen, millions)



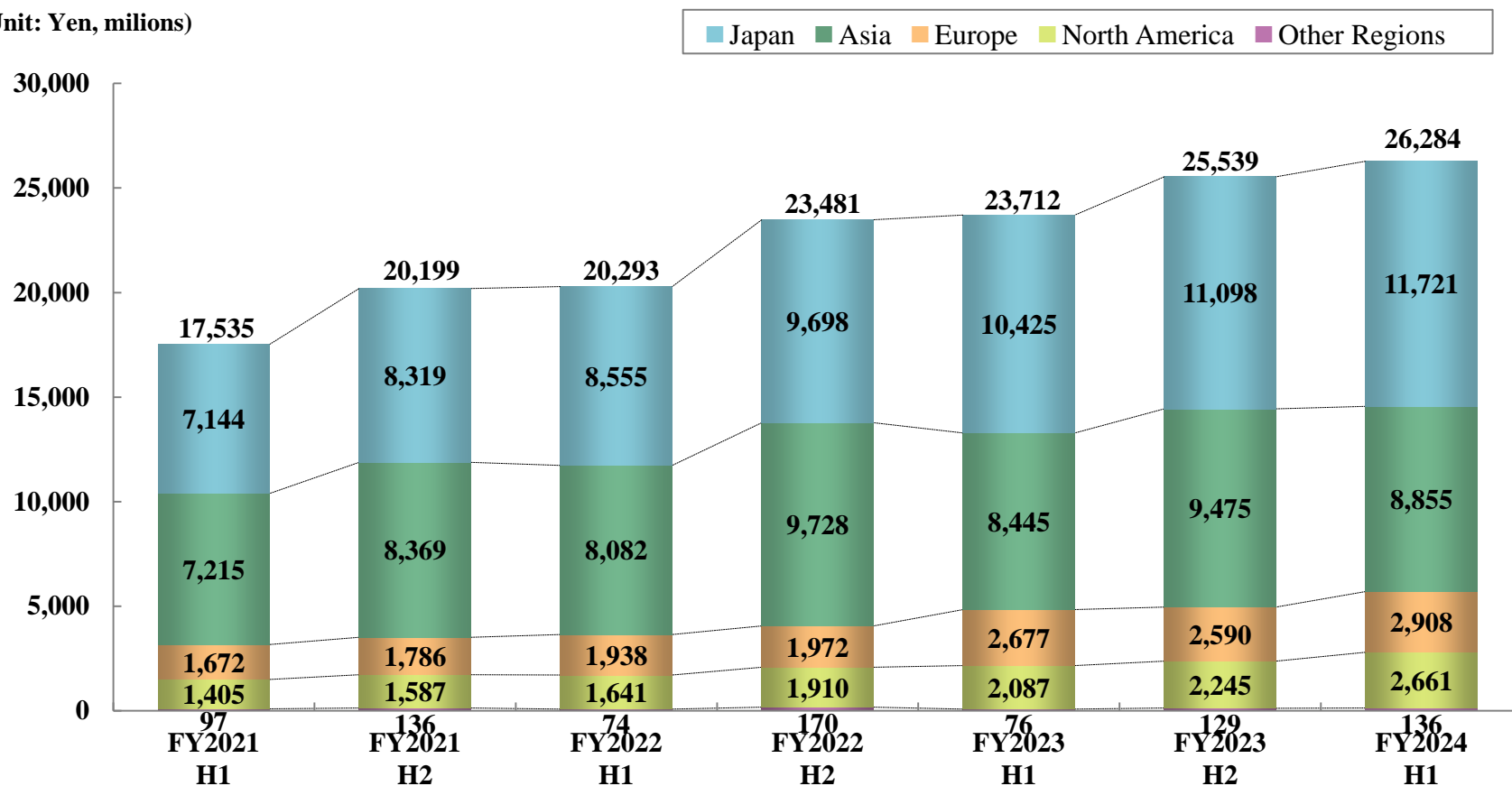
[Three major products]

- Sales of SiC-coated graphite products for SiC epitaxial applications grew substantially year on year. Sales for Si epitaxial applications, which were expected to suffer the impact of a market correction, were also robust, coming in above the same period of the previous year. Sales of these key products have grown steadily, reaching their highest-ever levels, partly thanks to the new equipment that began operation in the second half of the previous fiscal year.
- Sales of C/C composite products increased year on year due to solid sales of products for industrial furnace applications.
- Sales of graphite sheet products increased year on year due to solid sales of products for automobile applications.

4. Sales by Region

✓ Sales in Japan, Europe, and North America increased steadily, supported by demand for semiconductor and metallurgical applications
 In Asia, sales came in above the level of the same period of the previous fiscal year, due primarily to a recovery in carbon products for electrical applications.
 This was despite a slump in metallurgical applications, as well as adjustments in some regions.

(Unit: Yen, milions)



5. Consolidated Balance Sheet and Statement of Cash Flows for the First Half of the Fiscal Year Ending December 31, 2024

Consolidated Balance Sheet	(Unit: Yen, millions)			Consolidated Statement of Cash Flow	(Unit: Yen, millions)	
	Jun. 30, 2023	Dec. 31, 2023	Jun. 30, 2024		FY2023/H1	FY2024/H1
Total assets	92,203	96,612	104,204	Cash and cash equivalents at beginning of period	11,773	13,601
Notes and accounts receivable – trade	16,464	17,494	18,630	Net increase (decrease) in cash and cash equivalents	852	(758)
Inventories	20,939	21,806	24,448	Cash and cash equivalents at end of period	12,626	12,843
Property, plant and equipment	32,096	33,243	37,415	Net cash provided by operating activities	2,329	4,210
Total liabilities and net assets	92,203	96,612	104,204	Net cash provided by (used in) investing activities	60	(3,113)
Interest-bearing liabilities	0	0	0	Net cash provided by (used in) financing activities	(1,860)	(2,413)
Share capital	7,947	7,947	7,947			
Net assets	81,131	84,524	89,736			
Equity ratio	87.9%	87.4%	86.1%			

Forecasts for the Fiscal Year Ending December 31, 2024

- ✓ Despite smooth progress as planned during the first half of the fiscal year, **the full-year forecasts and exchange rate assumptions have been left unchanged** due to concerns over the outlook for economic conditions in Europe, the United States, and China and increasingly uncertain factors such as the impact of each country's policies and restrictions on exchange rates and industry.
- ✓ The sales outlook has been changed given factors such as changes in market conditions. **Despite fluctuations for each product and application, overall net sales will be in line with the initial plan.**

■ Si semiconductor applications

The market is only expected to recover fully from 2025 onward, but demand is stronger than initially anticipated.

- Special graphite products – electronics applications: components for Si wafer manufacturing
- Compound materials – SiC-coated graphite products: parts for SiC epitaxial equipments
 - ▶ Both revised upwards from the initial plan

■ SiC semiconductor applications

The high growth in demand will temporarily flatten off due to weaker growth in EVs and a decline in operation among wafer manufacturers.

Despite a more subdued growth curve, high growth is still forecast in the medium and long term, against the backdrop of progressively more electronic components in automobiles and The expanding adoption of SiC semiconductors in energy equipment.

- Special graphite products – electronics applications: components for Si wafer manufacturing
 - ▶ Revised downward from the initial plan given the market environment
- Compound materials – SiC-coated graphite products: parts for SiC epitaxial equipments
 - ▶ Revised upward from the initial plan due to the persistence of strong demand, against the backdrop of our high market share

2. Forecasts for the Fiscal Year Ending December 31, 2024

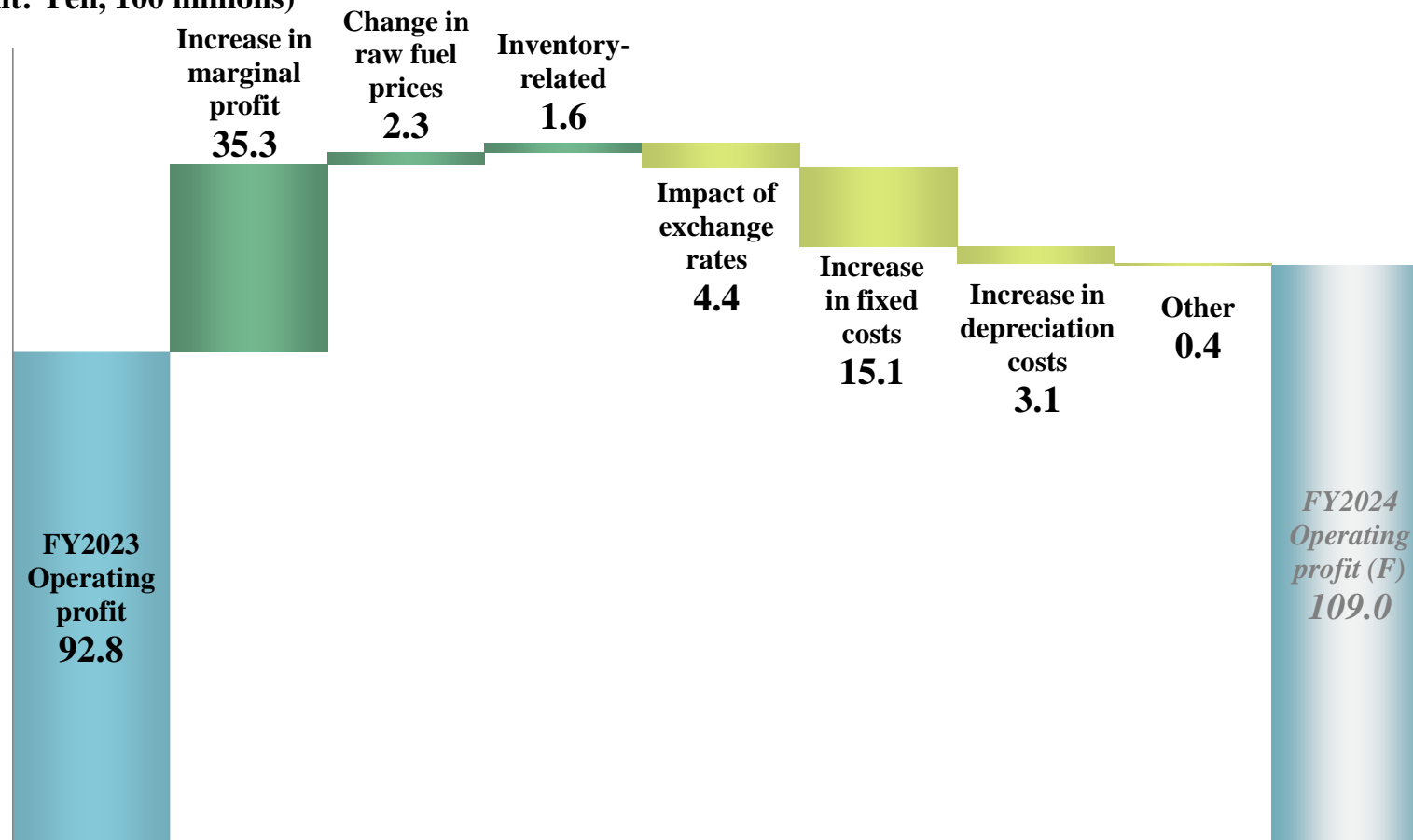
	FY2023			FY2024			
	(Unit: Yen, millions)	Breakdown		(F)	Breakdown		YoY
Net sales	49,251	H1	23,712	54,000	H1 (A)	26,284	+ 4,748 / + 9.6 %
		H2	25,539		H2 (F)	27,715	
Operating profit	9,283	H1	4,610	10,900	H1 (A)	5,808	+ 1,616 / + 17.4 %
		H2	4,672		H2 (F)	5,091	
(Ratio of operating profit to net sales)	18.8%			20.2%			
Ordinary profit	10,182	H1	5,338	10,500	H1 (A)	6,994	+ 317 / + 3.1 %
		H2	4,844		H2 (F)	3,505	
(Ratio of ordinary profit to net sales)	20.7%			19.4%			
Profit attributable to owners of parent	7,506	H1	4,128	7,600	H1 (A)	5,156	+ 93 / + 1.2 %
		H2	3,377		H2 (F)	2,443	
Basic earnings per share (yen)	357.91	H1	196.85	362.38	H1 (A)	245.89	
		H2	161.06		H2 (F)	116.49	
ROE	9.3%			8.7%			
Exchange rate	140.6 yen/\$ 152.0 yen/€ 19.8 yen/CNY			135 yen/\$ 149 yen/€ 19 yen/CNY			

3. Factors Affecting Changes in Operating Profit

(fiscal year ended December 2023 vs. fiscal year ending December 2024)

- ✓ Operating profit to increase by 17.4% due to an increase in marginal profit (volumes, price pass-on, and product mix) in addition to the effect of exchange rates, despite increases in fixed costs (mainly personnel expenses), depreciation, etc.

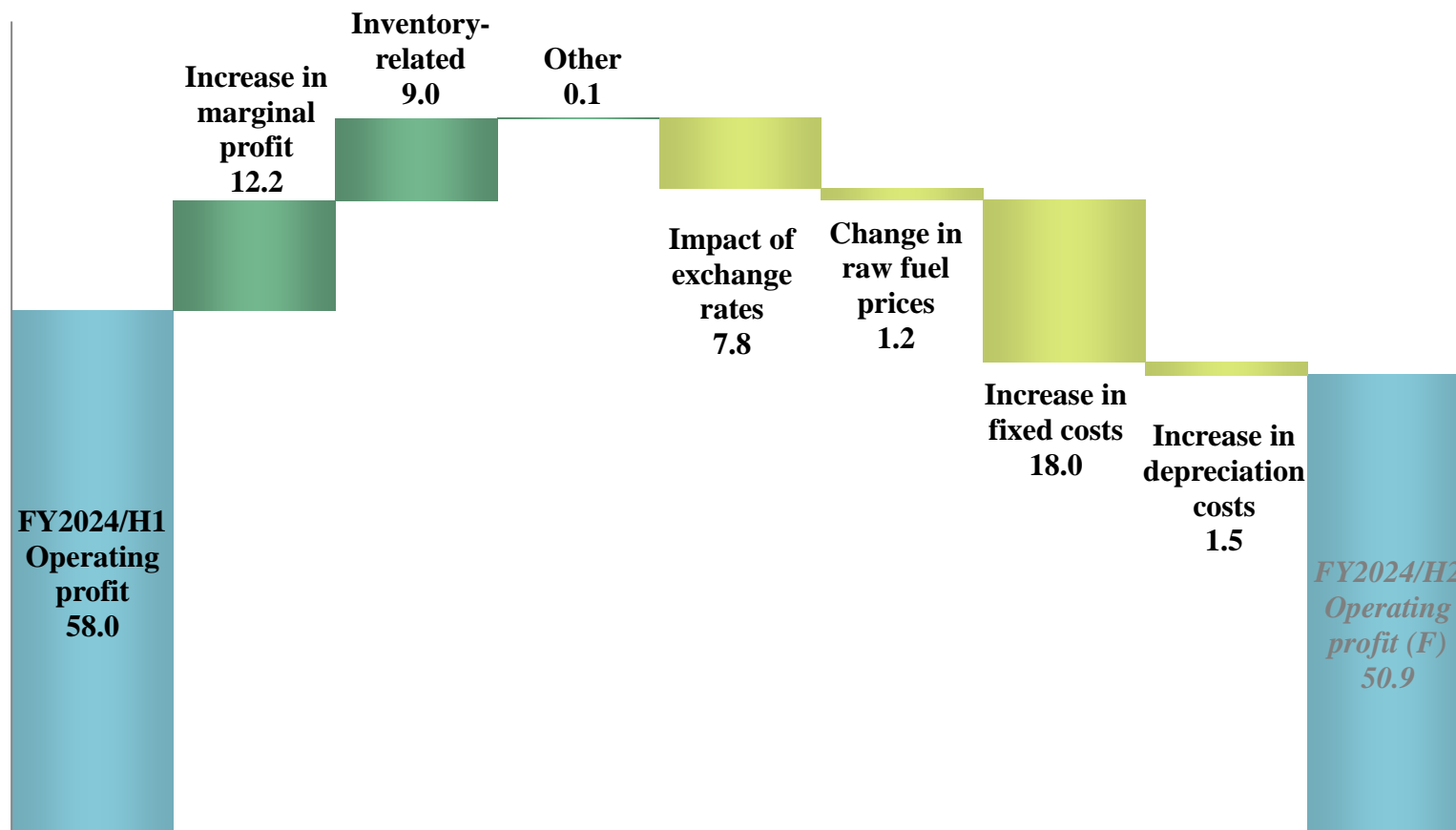
(Unit: Yen, 100 millions)



3. Factors Affecting Changes in Operating Profit (first half vs. second half of fiscal year ending December 2024)

- ✓ Significantly impacted by the deferment of changes in exchange rate assumptions, as well as the increase in fixed costs (personnel expenses, manufacturing overheads), despite the contribution from an increase in marginal profit (volumes, product mix, etc.) and a decrease in unrealized gain on inventories.

(Unit: Yen, 100 millions)



4. Net Sales by Product and Segment

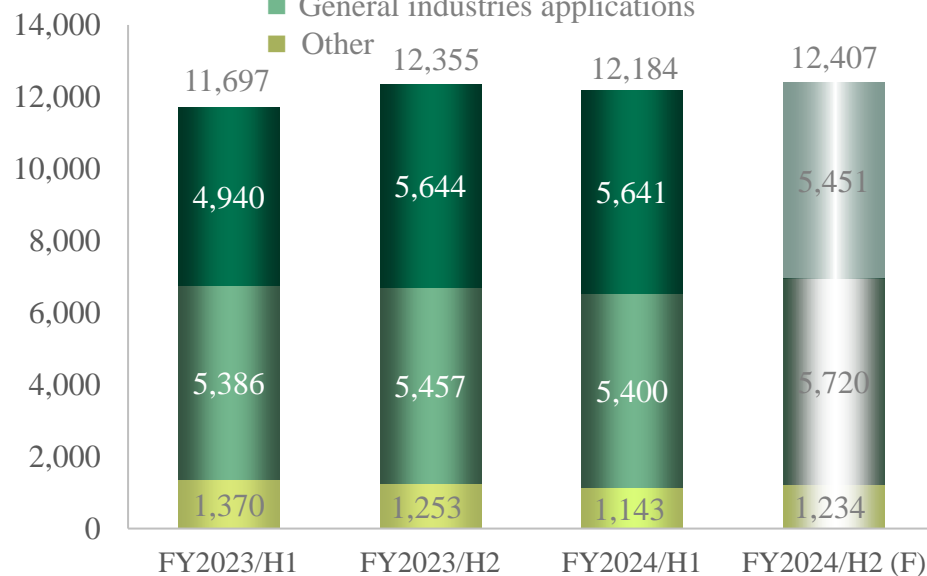
Product and Segment (Unit: Yen, millions)	FY2023			FY2024								
	H1	H2	Full year	H1	YoY	Vs. initial forecast	H2 (F)	YoY	Vs. initial forecast	Full year (F)	YoY	Vs. initial forecast
Special Graphite Products	11,697	12,355	24,052	12,184	+4.2%	-5.9%	12,407	+0.4%	-13.5%	24,591	+2.2%	-9.9%
Electronics Applications	4,940	5,644	10,585	5,641	+14.2%	-10.6%	5,451	-3.4%	-24.6%	11,093	+4.8%	-18.1%
General Industries Applications	5,386	5,457	10,843	5,400	+0.3%	+1.3%	5,720	+4.8%	+0.1%	11,120	+2.6%	+0.7%
Others	1,370	1,253	2,624	1,143	-16.6%	-12.6%	1,234	-1.5%	-12.3%	2,377	-9.4%	-12.5%
Carbon Products for General Industries [Carbon Products for Mechanical Applications]	2,017	2,099	4,116	1,954	-3.1%	+13.3%	2,067	-1.5%	+15.8%	4,022	-2.3%	+14.6%
Carbon Products for General Industries [Carbon Products for Electrical Applications]	2,102	2,354	4,457	2,456	+16.8%	-2.1%	2,495	+6.0%	-3.5%	4,951	+11.1%	-2.8%
Compound Materials and Other Products	6,745	7,384	14,129	8,523	+26.4%	+10.5%	9,670	+31.0%	+8.9%	18,193	+28.8%	+9.7%
Three Major Products	5,802	6,413	12,215	7,527	+29.7%	+11.2%	8,581	+33.8%	+10.2%	16,109	+31.9%	+10.6%
Other Products	942	971	1,913	995	+5.6%	+5.7%	1,088	+12.1%	-0.3%	2,084	+8.9%	+2.5%
Related goods	1,149	1,345	2,494	1,164	+1.4%	+91.6%	1,075	-20.1%	+19.8%	2,240	-10.2%	+48.8%
Total	23,712	25,539	49,251	26,284	+10.8%	+3.1%	27,715	+8.5%	-2.8%	54,000	+9.6%	0.0%

4. Net Sales by Product and Segment: Special Graphite Products

Product and Segment (Unit: Yen, millions)	FY2023			FY2024								
	H1	H2	Full year	H1	YoY	Vs. initial forecast	H2 (F)	YoY	Vs. initial forecast	Full year (F)	YoY	Vs. initial forecast
Special Graphite Products	11,697	12,355	24,052	12,184	+4.2%	-5.9%	12,407	+0.4%	-13.5%	24,591	+2.2%	-9.9%
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(Unit: Yen, millions)

■ Electronics applications
■ General industries applications
■ Other



[Electronics applications]

- The decline in full-year sales of products for single-crystal silicon manufacturing applications will be kept below 10%, an improvement compared to the initial forecast underpinned by steady demand, although the market is only expected to recover fully from 2025 onward.
- Sales of products for compound semiconductor manufacturing applications will grow significantly year on year, despite being substantially lower than the initial forecast due to a decline in operation by wafer manufacturers and a slowdown in EV growth.
- For sales of products for solar cell manufacturing applications, we will continue selective order acceptance. Sales will be substantially lower than both the initial forecast and the previous fiscal year due to a decline in customer operation.

[General industries applications]

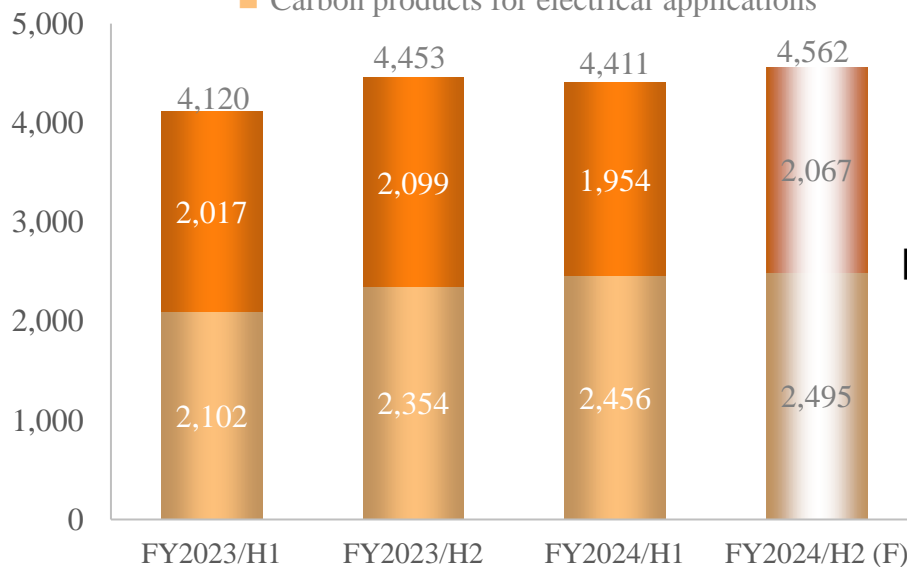
- We expect firm demand for metallurgical applications such as industrial furnace applications and continuous casting applications, with sales for EDM electrode applications remaining solid as well. Sales will remain at high levels in line with the initial forecast and the previous fiscal year.

4. Net Sales by Product and Segment: Carbon Products for General Industries TOYO TANSO Inspiration for Innovation



Product and Segment (Unit: Yen, millions)	FY2023			FY2024								
	H1	H2	Full year	H1	YoY	Vs. initial forecast	H2 (F)	YoY	Vs. initial forecast	Full year (F)	YoY	Vs. initial forecast
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(Unit: Yen, millions) ■ Carbon products for mechanical applications
■ Carbon products for electrical applications



[Carbon products for mechanical applications]

- Demand is firm for bearings, sealing rings, and pantograph sliders, while the development of new applications is progressing. Only a slight decline in sales is expected in this segment, a substantial improvement on the initial forecast.

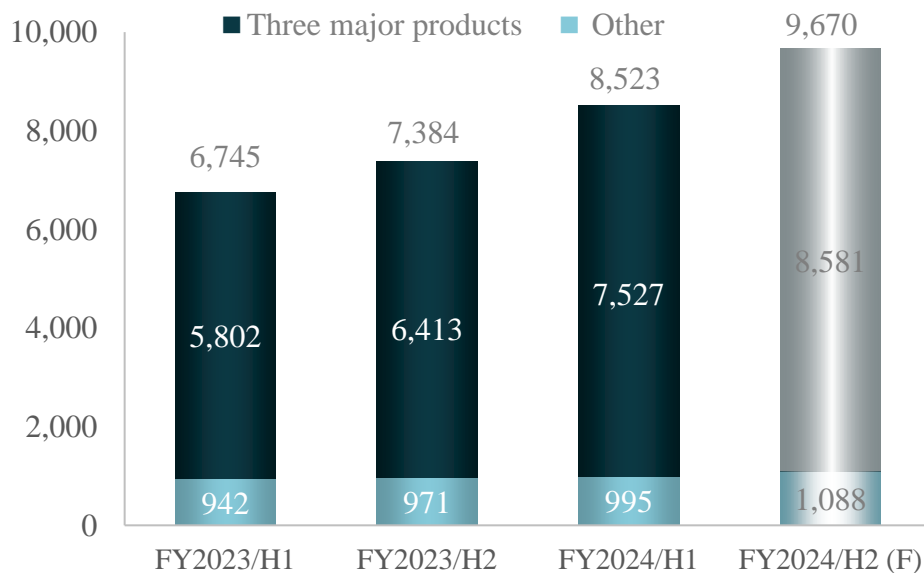
[Carbon products for electrical applications]

- The current moderate recovery is expected to continue in sales of products for compact motors for home appliances and power tools, resulting in an increase year on year.
- Although volumes will remain small for large-motor applications for industrial machinery, we are progressively opening up new applications. We will continue to capture these sales.

4. Net Sales by Product and Segment: Compound Materials and Other Products

Product and Segment (Unit: Yen, millions)	FY2023			FY2024								
	H1	H2	Full year	H1	YoY	Vs. initial forecast	H2 (F)	YoY	Vs. initial forecast	Full year (F)	YoY	Vs. initial forecast
Compound Materials and Other Products	6,745	7,384	14,129	8,523	+26.4%	+10.5%	9,670	+31.0%	+8.9%	18,193	+28.8%	+9.7%
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(Unit: Yen, millions)



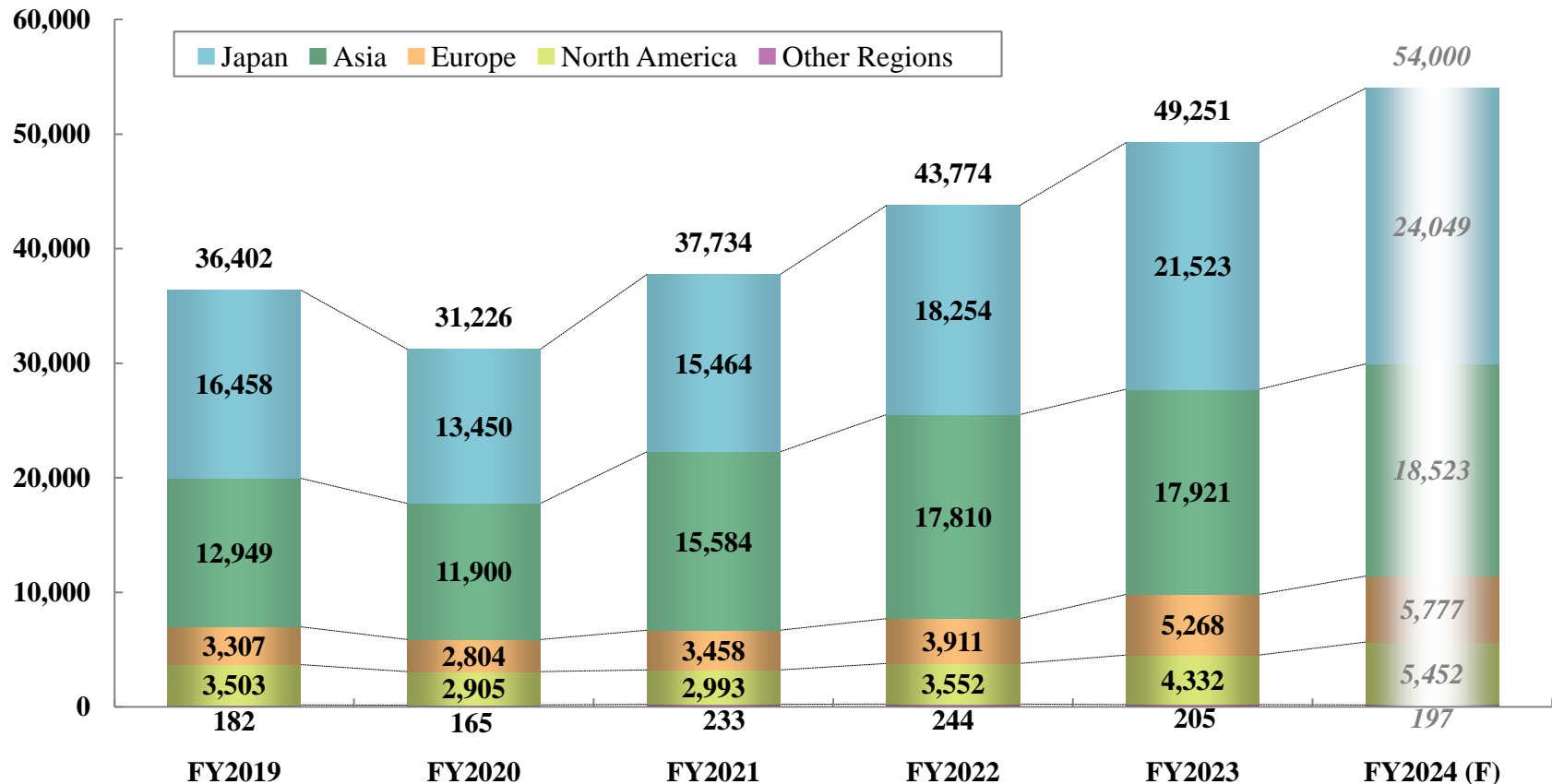
[Three major products]

- Sales of SiC-coated graphite products are expected to substantially exceed the previous fiscal year and the initial forecast with demand for both SiC epitaxial applications and Si epitaxial applications higher than initially anticipated.
- Capital investments for additional facilities scheduled for completion in 2024 are progressing as planned, with some to contribute to sales in the current fiscal year.
- Sales of C/C composite products are expected to remain at a high level, as in the previous fiscal year, driven by industrial furnace applications.
- Sales of graphite sheet products are expected to remain on par with the previous fiscal year amid firm demand for automobile applications.

5. Sales by Region

- ✓ Sales are steadily increasing in all regions.
- ✓ We will practice timely and appropriate management of production activities including delivery times, quality, and cost across the group to enable timely supply matching demand trends.

(Unit: Yen, millions)

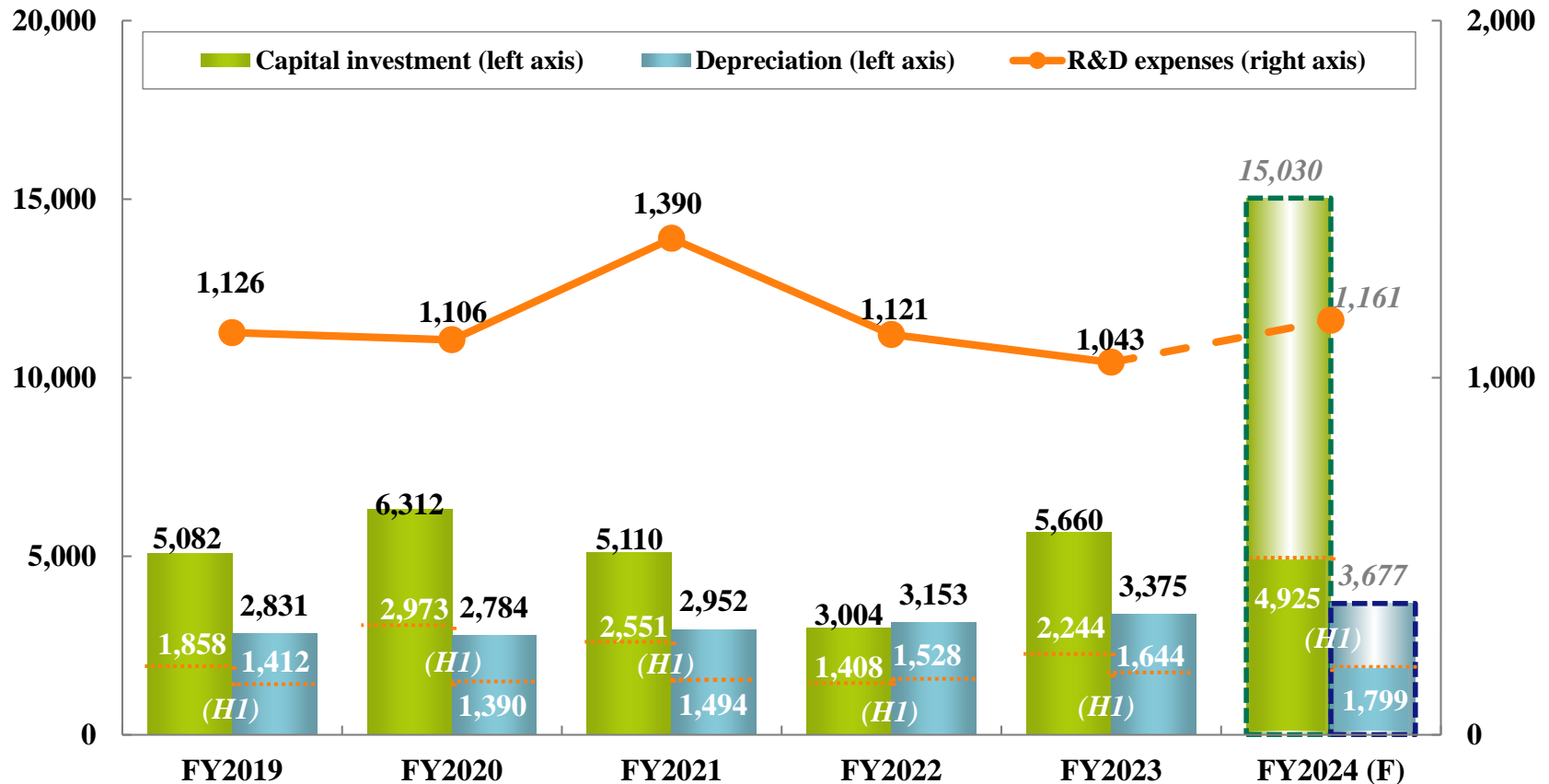


6. Capital Investment, Depreciation, and R&D Expenses

✓ Capital investments in enhancing purity, coatings (SiC, TaC), etc. are progressing steadily towards completion in the second half, as planned.

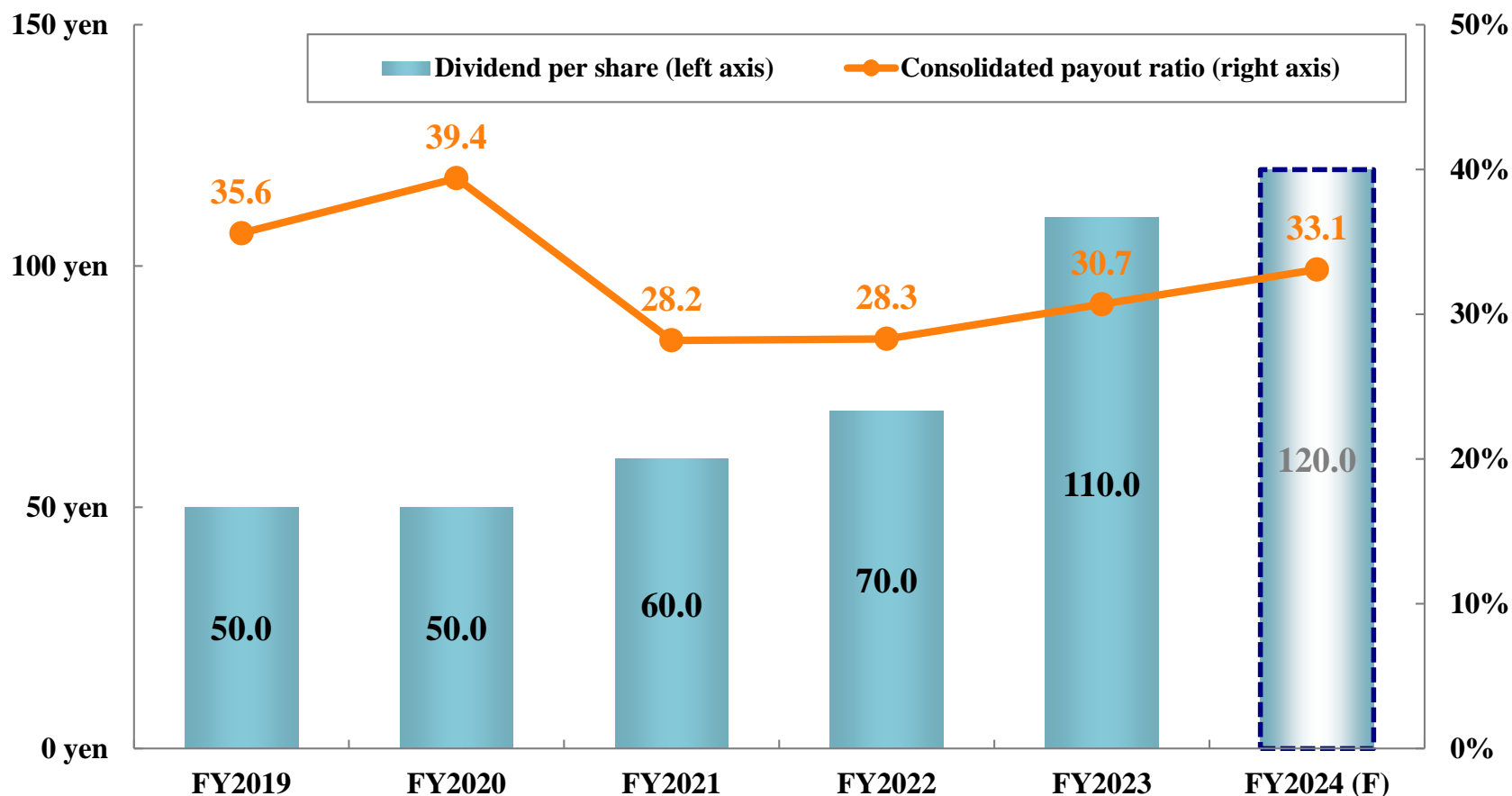
(Unit: Yen, millions)

(Unit: Yen, millions)



7. Dividend

- ✓ We will implement stable shareholder returns based on profit growth under our policy of maintaining a dividend payout ratio of 30% or more.



8. Order Received for Products for a Next-Generation Nuclear Reactor (High-Temperature Micro-Nuclear Reactor)

✓ We have received an order from Jimmy Energy SAS (France) for graphite products for a high-temperature micro-nuclear reactor (HTR).

Order Details

Complete set of graphite products for high-temperature micro-nuclear reactor (dozens tons)

Shipping/Sale Date (Scheduled)

2026 *Included in the Medium-term Management Plan (2024–2028)

About Jimmy Energy SAS

- Thermal generator module design and manufacturing firm. Plans to build a manufacturing plant in Le Creuzot, France, with the aim of commencing module operation in 2026.
- Jimmy Energy's thermal generator modules that are equipped with an HTR will achieve **a substantial reduction in CO₂ emissions and a low cost**. They can be connected directly to existing industrial facilities and are **expected to replace the gas burners widely used in industry as a heat source**. The French government has decided to provide a subsidy of 32 million euros for this plan by Jimmy.

About HTR

- Compared to light water reactors, which are currently the mainstream nuclear reactors, HTRs are **safer and more economical with higher thermal efficiency**. They are attracting increasing attention as fourth-generation nuclear reactors that can contribute to carbon neutrality.
- In addition, as they are capable of supplying high-temperature heat, they are **expected to be used for a range of applications such as hydrogen production**, and **studies are underway around the world to put them into practical use** as SMRs (Small Modular Reactors), playing a role in the next generation of energy supply.

Toyo Tanso's Strengths

- We have conducted joint research on HTRs with public institutions for many years, **accumulating know-how and irradiation data on graphite materials for nuclear power applications** and demonstrating the high reliability of our graphite materials for these applications.
- Our isotropic graphite material IG-110 has been adopted by numerous of experimental and trial reactors, including Jimmy Energy. IG-110 is **highly reliable with excellent thermal and mechanical properties and neutron irradiation resistance**.
- **Our dedicated department is providing assistance, in response to preliminary consultation from several parties, for the establishment HTR projects, the planning of which is still under consideration and confidential.**

Delivery record for HTRs

- Japan Atomic Energy Agency: test reactor (HTTR)
- Tsinghua University (China): test reactor (HTR-10)
- Huaneng Shandong Shidao Bay Nuclear Power Co., Ltd. (China): demonstration reactor (HTR-PM)

TOYO TANSO

Inspiration for Innovation

Note: This document has been translated from the Japanese original for reference purposes only. In the event of any discrepancy between this translated document and the Japanese original, the original shall prevail.

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