

Supplementary Materials of Financial Results for Q3 FY2023

Takuma Co., Ltd. | February 14, 2024

TAKUMA

1. Overview of Q3 FY2023 (Ended 3/2024) Financial Results

2. Financial Forecast for FY2023 (Ended 3/2024)

3. Reference Material

Q3 FY2023 Results

Orders received

¥138.2 billion
 +¥46.5 billion
 (+50.8%) YoY

Orders received up owing primarily to orders for Energy Plants and Water Treatment Plants in addition to DBO projects for municipal solid waste treatment plants.

- ↑ Domestic Environment and Energy Business
 - ↑ Municipal solid waste treatment plants
 - ↑ Energy Plants
 - ↑ Water Treatment Plants
- ↑ Overseas Environment and Energy Business
 - ↑ Package Boiler Business
 - ↓ Equipment and Systems Business

Net sales

¥104.8 billion
 +¥4.1 billion
 (+4.2%) YoY

Sales up for municipal solid waste treatment plants (after-sale services) in the Domestic Environment and Energy Business and three other segments.

- ↑ Domestic Environment and Energy Business
 - ↑ Municipal solid waste treatment plants (After-sales service)
- ↑ Overseas Environment and Energy Business
 - ↑ Package Boiler Business
 - ↑ Equipment and Systems Business

Operating profit

¥6,200 million
 -¥2,900 million
 (-32.0%) YoY

Recorded costs for measures to address equipment failure in the O&M of a waste treatment plant (gasification melting furnace) under contract in Q2.

- ↓ Domestic Environment and Energy Business
 - ↓ Change in EPC project mix
 - ↓ Cost of O&M measures
 - ↓ Operating expenses (Personnel, R&D, etc.)
 - ↓ Depreciation (New Harima Factory, etc.)
- ↑ Other 3 segments

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Orders received were up owing to an order for a municipal solid waste treatment plant DBO project in the Domestic Environment and Energy Business.

Net sales were up in all segments, but profit was down due mainly to the change in the EPC project mix in the Domestic Environment and Energy Business as well as the recording of costs for measures related to a municipal solid waste treatment plant (after-sale services) O&M project in Q2.

(Millions of yen)	Q3 FYE 3/2022 (FY2021)	Q3 FYE 3/2023 (FY2022)	Q3 FYE 3/2024 (FY2023)	YoY change
Orders received	108,455	91,631	138,223	+50.8%
Order backlog	401,929	436,267	504,582	+15.7%
Net sales	93,679	100,668	104,852	+4.2%
Operating profit	5,306	9,212	6,264	-32.0%
Operating margin	5.7%	9.2%	6.0%	-3.2pt
Ordinary profit	5,907	9,986	7,095	-29.0%
Quarterly profit attributable to owners of parent	4,080	7,019	4,947	-29.5%
Basic earnings per share (yen)	50.22	87.67	61.85	-29.5%

* EPC: Engineering, procurement, and construction; one approach we use in our plant construction business. * O&M: Operation and maintenance; one approach we use in our plant operation business.

* DBO, BTO: Both of one approach we use in our plant construction and operation businesses (EPC + O&M). DBO: Design, build, and operate; BTO: Build, transfer, and operate.

* DBM: Design, Build, and Maintenance. These projects take the form of EPC + long-term maintenance agreements.

* Primary equipment improvement work: Large-scale improvement work for the effective utilization of existing municipal solid waste treatment plants through maintenance and improvement of functions and extension of useful life.

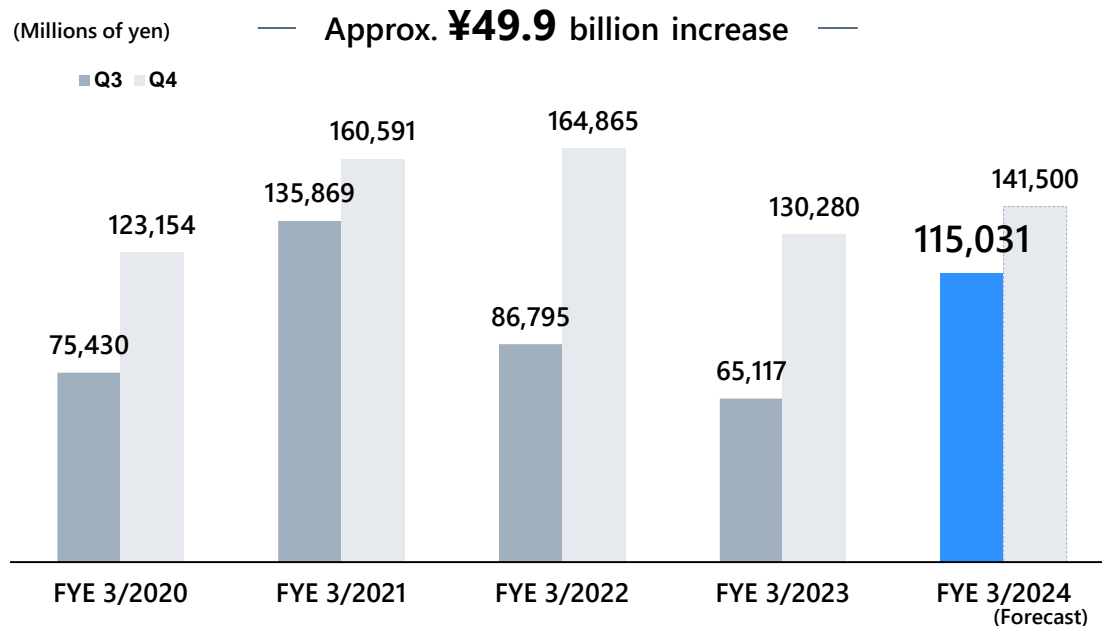
(Millions of yen)	Q3 FYE 3/2022 (FY2021)	Q3 FYE 3/2023 (FY2022)	Q3 FYE 3/2024 (FY2023)	YoY change
Orders received				
Total	108,455	91,631	138,223	+50.8%
Domestic Environment and Energy	86,795	65,117	115,031	+76.7%
Overseas Environment and Energy	1,510	1,151	1,834	+59.2%
Package Boiler	13,409	14,213	14,863	+4.6%
Equipment and Systems	6,945	11,419	6,758	-40.8%
Net sales				
Total	93,679	100,668	104,852	+4.2%
Domestic Environment and Energy	75,880	82,023	83,154	+1.4%
Overseas Environment and Energy	690	862	1,652	+91.7%
Package Boiler	11,876	12,088	13,513	+11.8%
Equipment and Systems	5,706	5,961	6,828	+14.5%
Operating profit				
Total	5,306	9,212	6,264	-32.0%
Domestic Environment and Energy	5,975	9,986	6,549	-34.4%
Overseas Environment and Energy	-141	-124	43	-
Package Boiler	441	539	895	+66.1%
Equipment and Systems	565	599	621	+3.8%

* Adjustments are omitted.

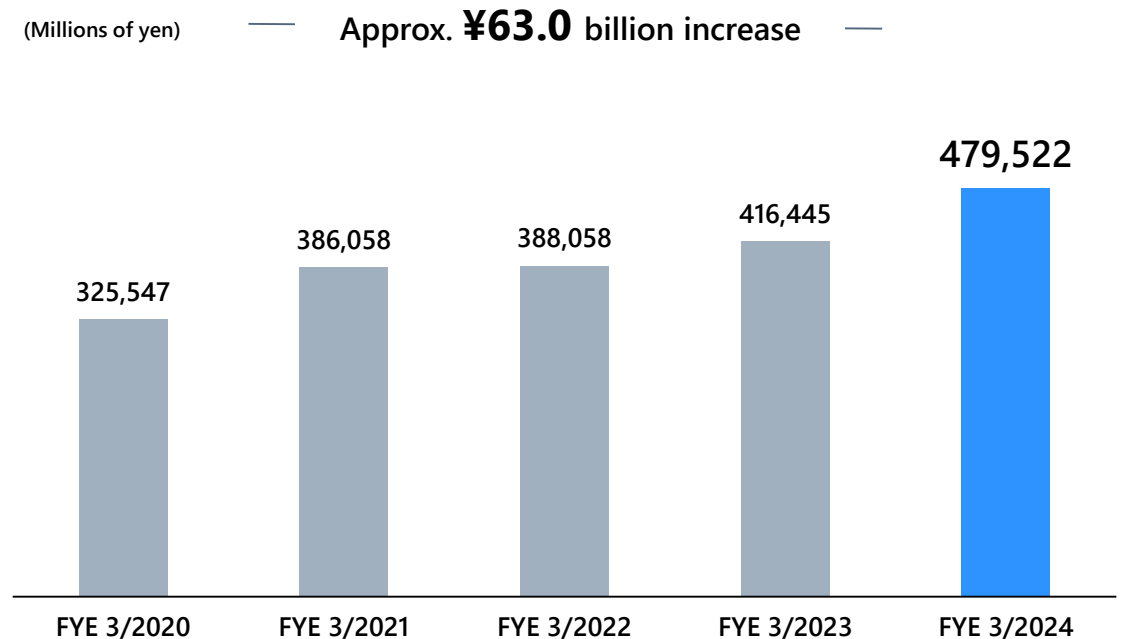
Orders received up owing to orders for Energy Plants and Water Treatment Plants in addition to a DBO projects for a municipal solid waste treatment plant.

- Orders received: Up owing to orders for a waste treatment plant DBO project, 7 Energy Plants (5 FIT projects, 1 self-consumption project, and 1 industrial waste treatment project), a large-scale renewal of a sand filtration system for a sewage treatment plant, and a sludge treatment facility DBM project.
- The order backlog is on the rise owing to steady orders for long-term O&M (such as DBO and BTO projects). Around 50% of the backlog is long-term O&M.

Orders received



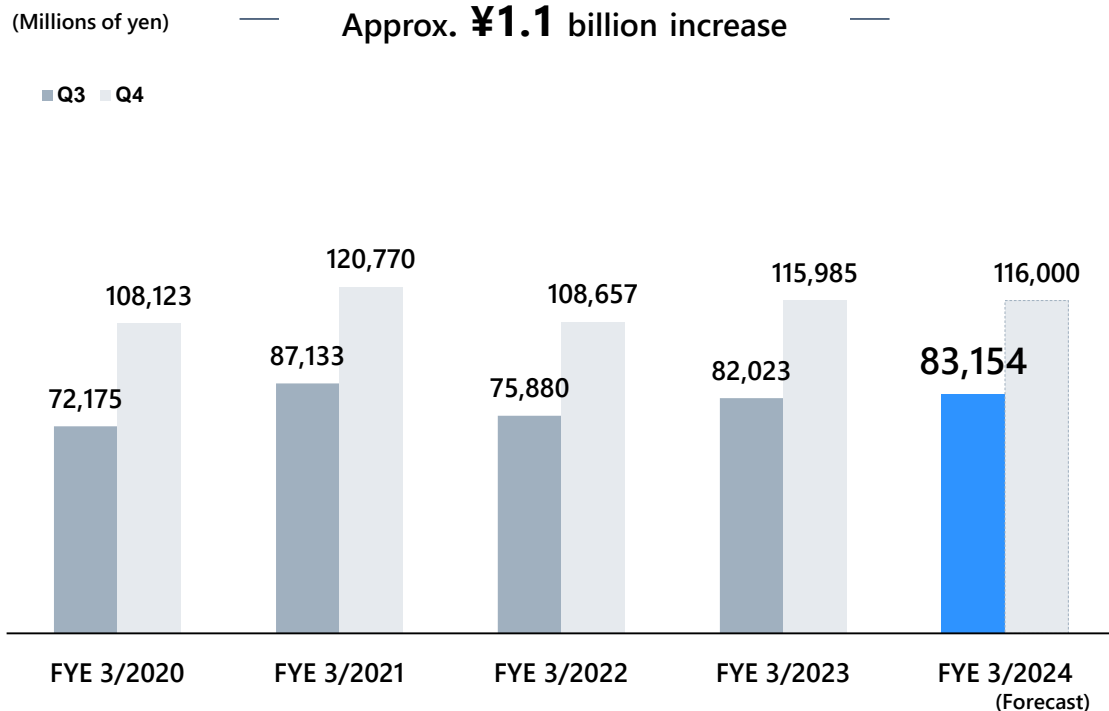
Order backlog (Q3)



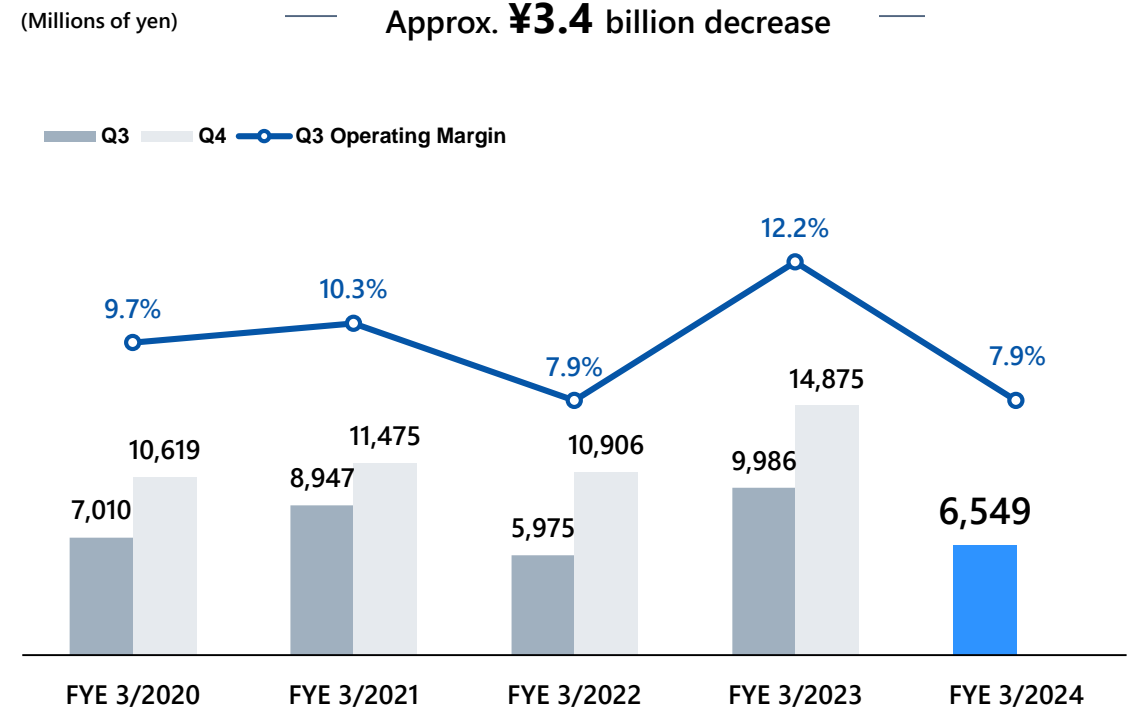
Sales were up, but profit was down due to a change in the EPC project mix as well as the recording of costs for O&M measures at a waste treatment plant under contract in Q2.

- Net sales: Up owing to an increase in after-sale services at a municipal solid waste treatment plant.
- Operating profit: Down due to changes in the EPC project mix, increased depreciation at the new Harima Factory associated with operations, and increased operating expenses such as personnel and R&D expenses as well as the recording of costs for measures at a waste treatment plant (gasification melting furnace) under O&M contract in Q2.

Net sales



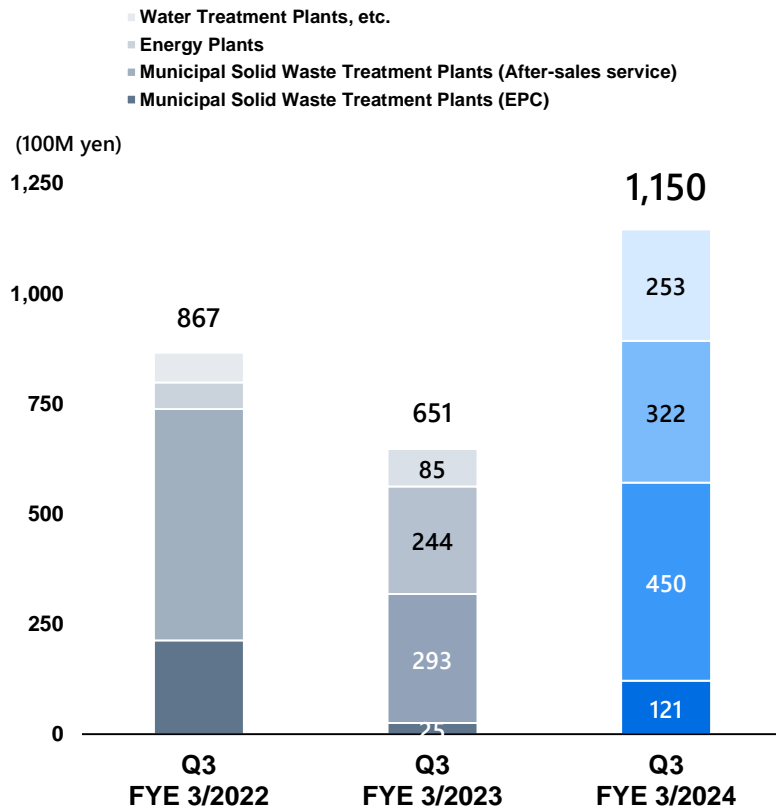
Operating profit



Orders received were up in all sub-segments.

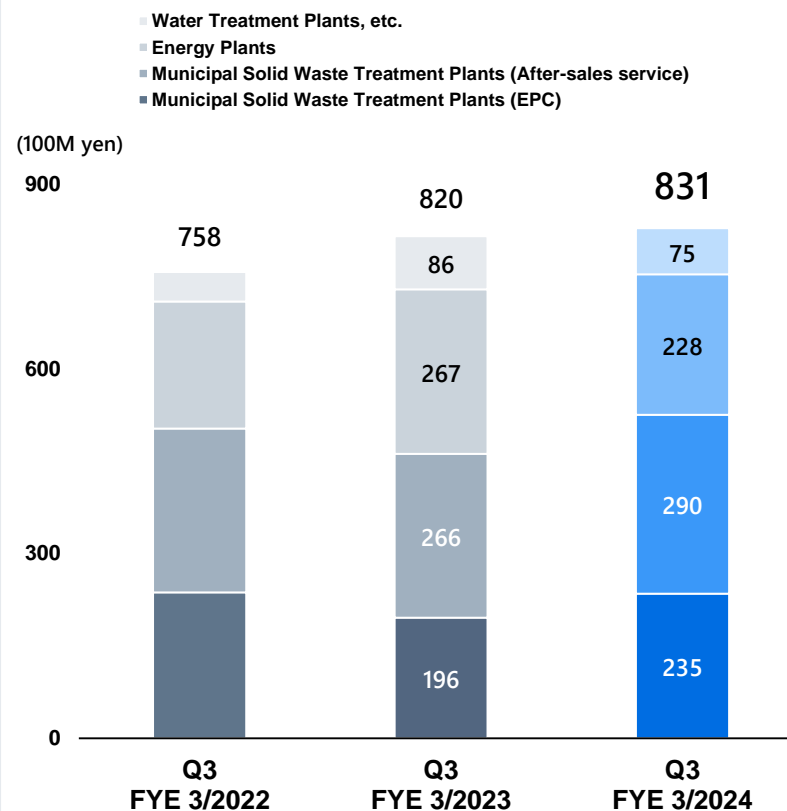
Sales were up, owing to an increase in after-sale services at a municipal solid waste treatment plant.

Orders received

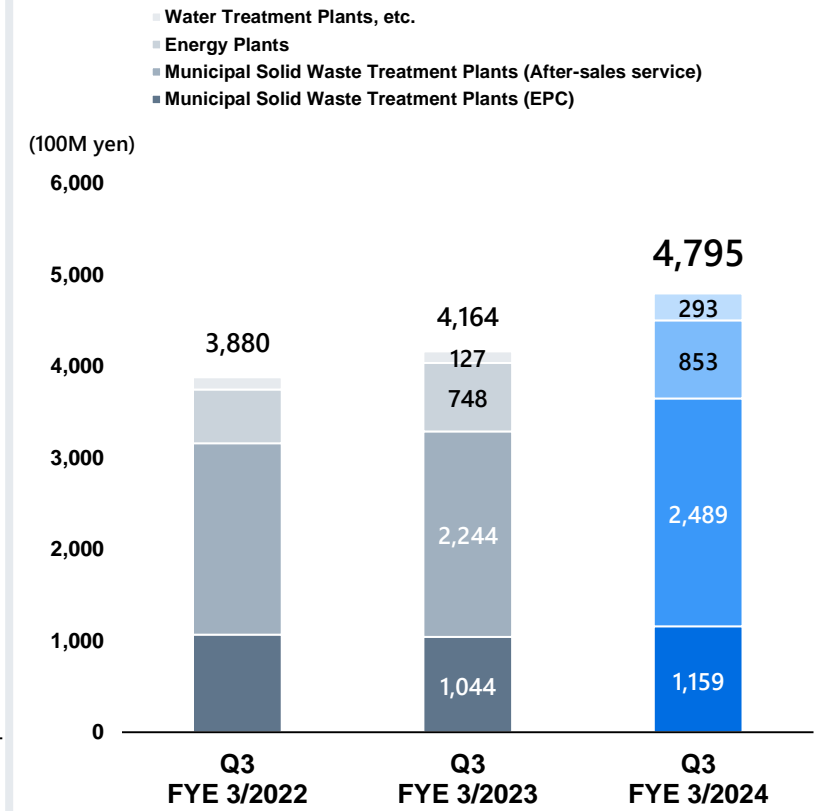


* Adjustments are omitted.

Net sales



Order backlog



From Q1 to Q3 of FY3/2024, orders were received for 1 municipal solid waste treatment plant DBO project and 1 large-scale renewal of a sand filtration system for a sewage treatment plant, and 1 sludge treatment facility DBM project.

	Year	Delivered to:	Notes		Capacity	Scheduled Completion	
Municipal solid waste treatment plant	FYE 3/2022	Q1	Uwajima Public Association	After-sales service	Long-term O&M	120 t/day	4/2021-3/2031 (10 years)
		Q2	Hakodate City	EPC & After-sales service	DBO	300 t/day	3/2029 (22 years of operations starting 4/2022)
		Q4	Okayama City	EPC & After-sales service	DBO	200 t/day	3/2027 (20 years of operations starting 4/2027)
			Shida Public Association	EPC & After-sales service	DBO	223 t/day	12/2026 (20 years of operations starting 1/2027)
	FYE 3/2023	Q1	Senboku Environmental Improvement Facilities Association	EPC	Primary equipment improvement work	300 t/day	3/2024
		Q3	Okinoshima-cho	After-sales service	Long-term O&M	25 t/day	4/2023-3/2038 (15 years)
		Q4	Kohoku Wide Area Administrative Affairs Center	EPC & After-sales service	BTO ^{*1}	124 t/day	3/2030 (18 years of operations starting 4/2028 ^{*2})
FYE 3/2024	Q3	Ashikaga City	EPC & After-sales service	DBO	152 t/day	3/2028 (20 years of operations starting 4/2028)	
Water treatment plant	FYE 3/2022	Q3	Ochiai Water Reclamation Center	EPC (Sand filtration system)	-	80units	Jan 2025
	FYE 3/2024	Q2	Ochiai Water Reclamation Center	EPC (Sand filtration system)	-	128units	Feb 2028
		Q3	Osaka Prefecture Chuo Mizu Mirai Center	EPC (sludge treatment plant) & After-sales service	DBM ^{*3}	sewage sludge incineration 100 t/day	Jun 2027 (About 11 years of long-term maintenance starting 7/2027)

*1. BTO is an acronym for "Build, Transfer, Operate." It refers to a business method based on a private finance initiative (PFI) in which a private business operator procures funds and engages in EPC of the facility, transfers ownership of the facility to the public upon completion, and then the private business operator operates the facility.

*2. Start of overall facility operations, including heat recovery facility

*3. DBM: Design, Build, and Maintenance. These projects take the form of EPC + long-term maintenance agreements.

From Q1 to Q3 of FY3/2024, orders were received for 5 biomass power plants (FIT), 1 self-consumption project, and 1 EPC project for an industrial waste treatment plant.

	Year	Delivered to:	Notes		Capacity	Scheduled Completion	
Energy plants	FYE 3/2022	Q1	Company A	EPC	Power generation business (Biomass, FIT)	1,990kW	-
		Q2	Kumamoto Clean Energy Co.	EPC	Power generation business (Biomass, FIT)	1,990kW	Autumn 2023
		Q3	Sanko Inc.	EPC	Industrial waste treatment	93.6 t/day	7/2024
		Q4	Aizu Komorebi Power Plant LLC.	EPC	Power generation business (Biomass, FIT)	7,100kW	11/2024
			Chugoku Mokuzai Co., Ltd. Noshiro Plant	EPC	Self-consumption (Biomass, Non-FIT)	2,090kW	3/2024
			Chugoku Mokuzai Co., Ltd. Nagaragawa	EPC	Power generation business (Biomass, FIT)	9,990kW	3/2025
			Regional power Co.	EPC	Power generation business (Biomass, FIT)	9,990kW	3/2025
			Nihonkaisui TTS Kanda Power Co.	After-sales service (Long-term O&M)	Power generation business (Biomass, FIT)	50,000kW	2023-2043 (20 years)
	FYE 3/2023	Q1	Sanyo-Onoda Green Energy Co.	EPC	Power generation business (Biomass, FIT)	1,990kW	6/2024
			Power Aid MIE LLC.	EPC	Power generation business (Biomass and others, Non-FIT)	1,990kW	Winter FYE 3/2025
		Q2	Company B	EPC	Power generation business (Biomass, FIT)	7,100kW	-
			Soga Biomass Power Generation Co.	EPC	Power generation business (Biomass, FIT)	1,990kW	11/2024
			Company C	EPC (Fuel conversion)	Self-consumption (Biomass and others, Non-FIT)	-	-
		Q3	Katsuta Co., Ltd.	EPC	Industrial waste treatment	150t/day	2/2026
	Q4	Regional power Co.	EPC	Power generation business (Biomass, Non-FIT)	9,990kW	8/2026	
	FYE 3/2024	Q1	Furusato FIC Energy LLC.	EPC	Power generation business (Biomass, FIT)	1,990kW	1/2026
			Mogami Biomass Power Generation2 (KK)	EPC	Power generation business (Biomass, FIT)	7,100kW	10/2026
		Q2	Shin Tokai Paper Co., Ltd. Shimada Plant	EPC	Self-consumption (Biomass and others, Non-FIT)	-	1/2027
			Company D	EPC	Power generation business (Biomass, FIT)	7,100kW	-
			Green Power Tono (KK)	EPC	Power generation business (Biomass, FIT)	1,990kW	11/2026
Q3		Tochigi High Trust Co., Ltd.	EPC	Industrial waste treatment	93.6t/day	02/2027	
	Company E	EPC	Power generation business (Biomass, FIT)	7,100kW	-		

*Self-consumption: Steam (heat) and electricity produced by a plant installed within the factory are used within the factory without being supplied externally.

Domestic Environment and Energy Business

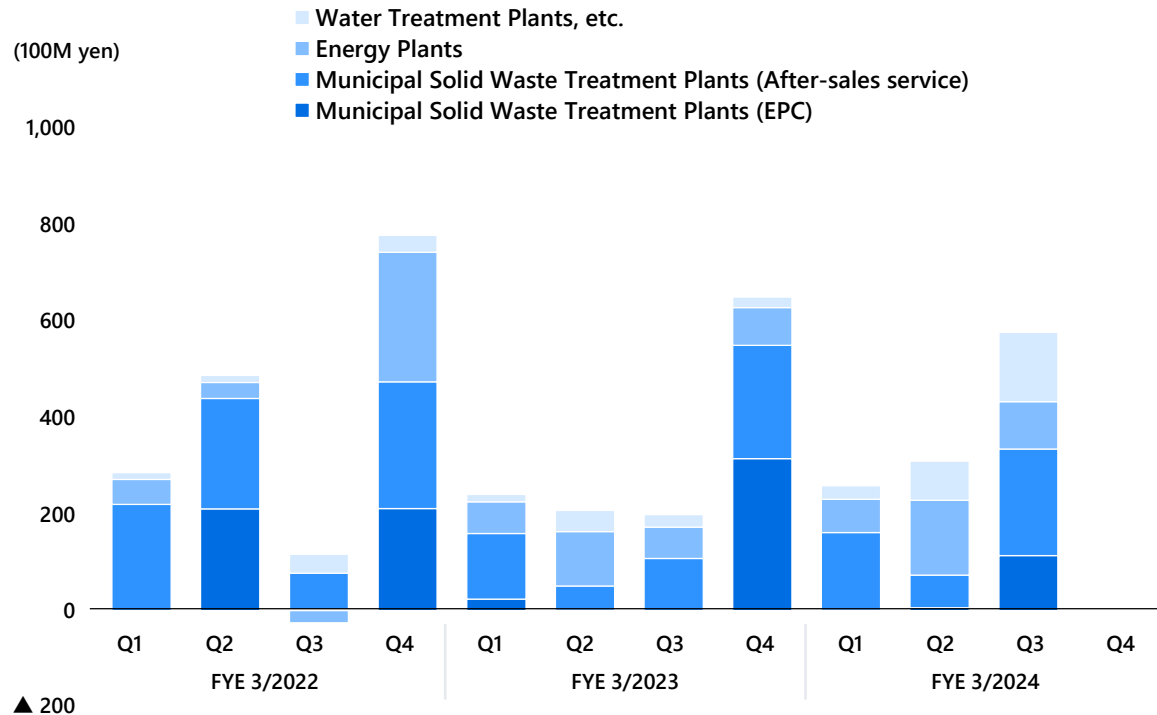
Quarterly trend in
Orders received /
Net sales (Reference material)



Orders received vary significantly depending on the timing that projects are recorded. Net sales tend to increase going into the fourth quarter.

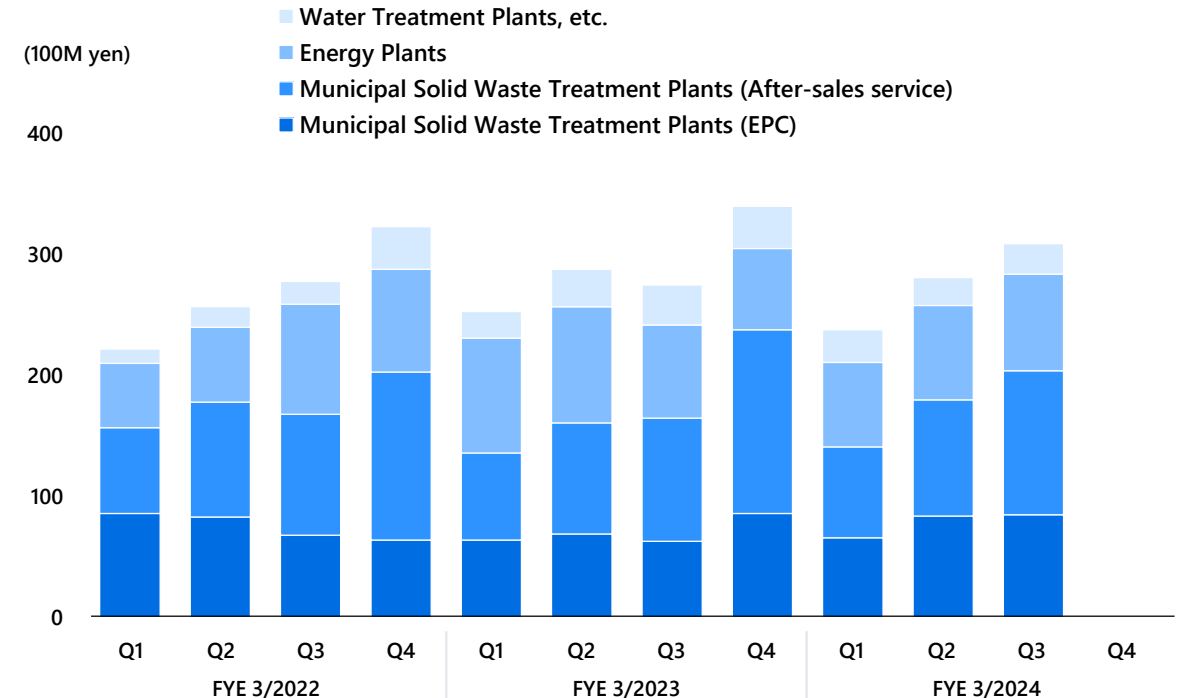
Orders received (quarterly)

The amount of each EPC project is large, so orders received tend to vary significantly depending on the timing of the contract.



Net sales (quarterly)

Although net sales vary depending on progress on construction of EPC projects for the period, municipal solid waste treatment plants (after-sales service) increases going into the fourth quarter, so overall net sales also tend to increase going into the fourth quarter.



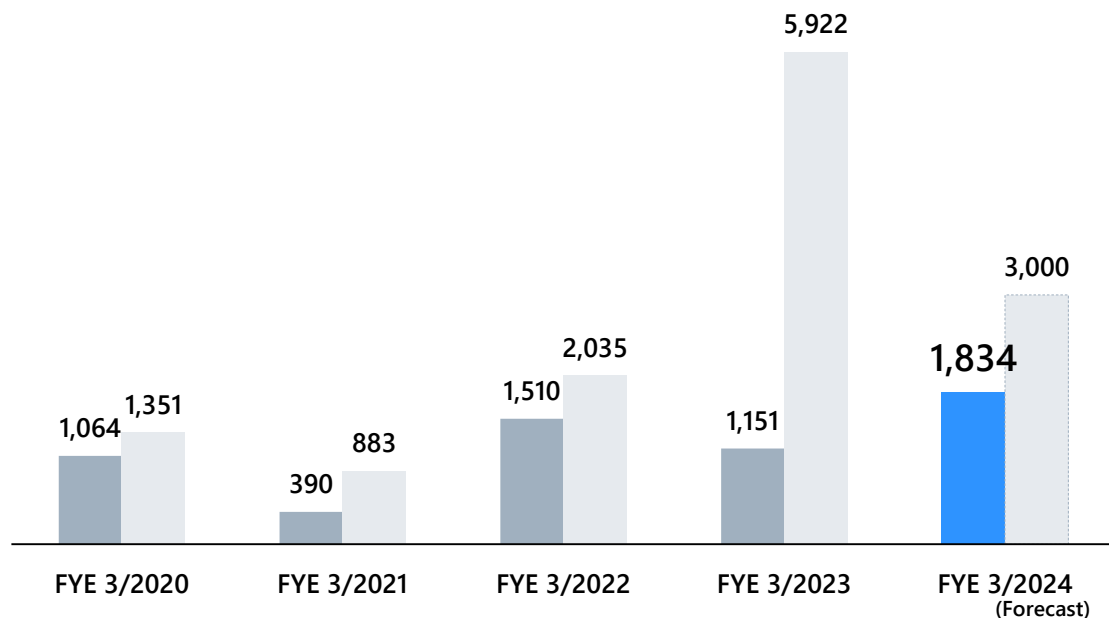
Orders received were up owing primarily to the recording of an additional order for the waste treatment plant project received the previous year in Q2. We will continue going after new construction and renewal projects in addition to maintenance services.

Orders received

(Millions of yen)

Approx. **¥680** million increase

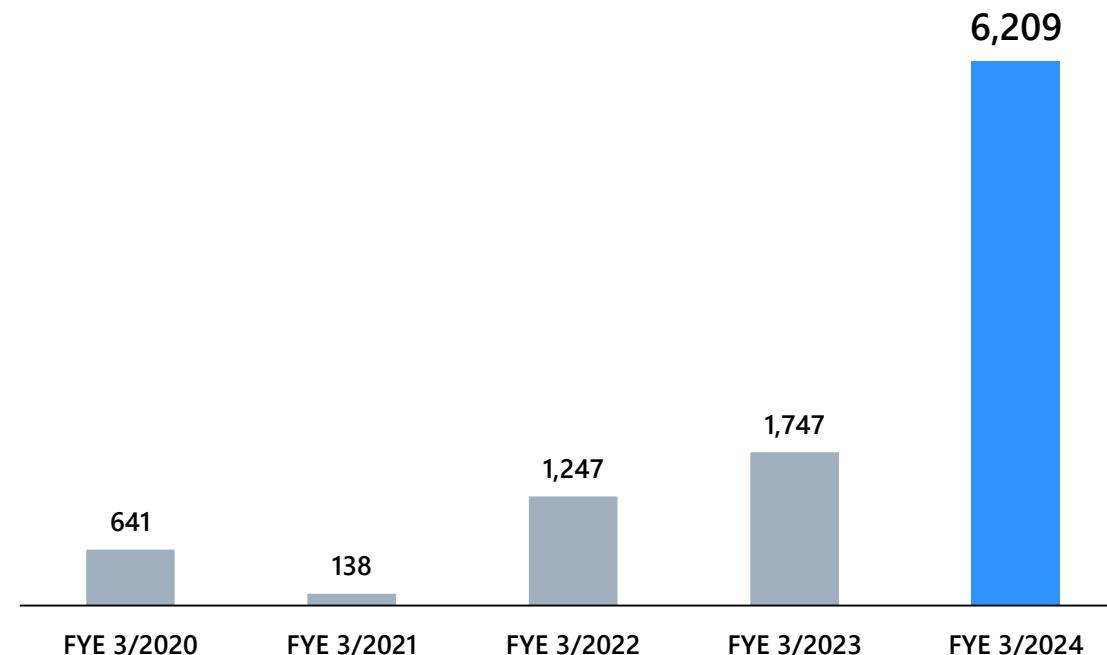
■ Q3 ■ Q4



Order backlog (Q3)

(Millions of yen)

Approx. **¥4.4** billion increase



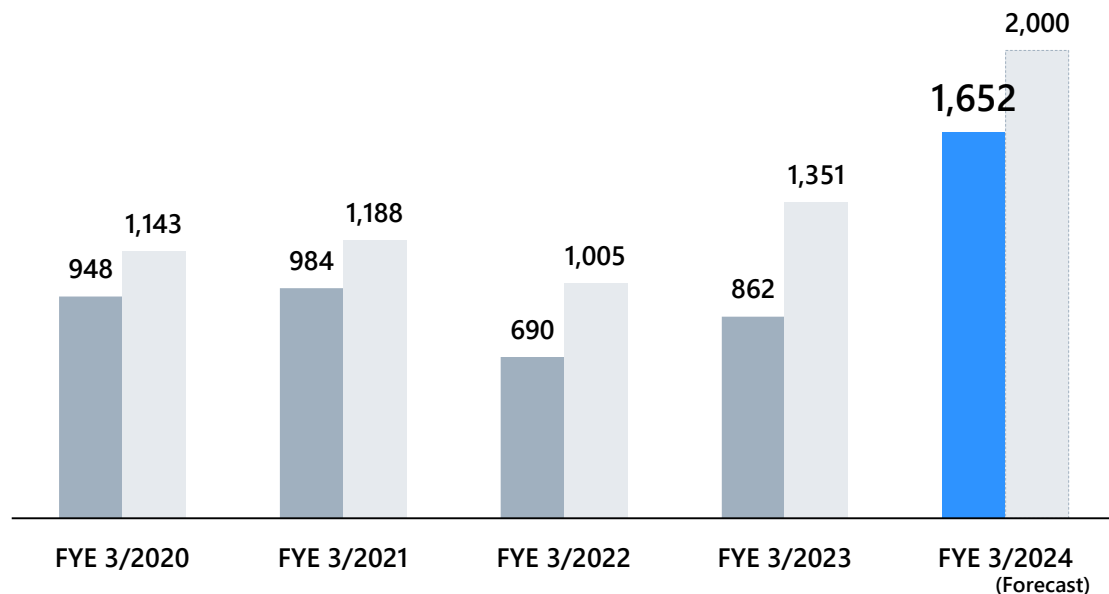
Net sales were up owing primarily to progress on EPC projects previously ordered in addition to maintenance services. Operating profit also improved.

Net sales

(Millions of yen)

Approx. **¥790 million increase**

■ Q3 ■ Q4

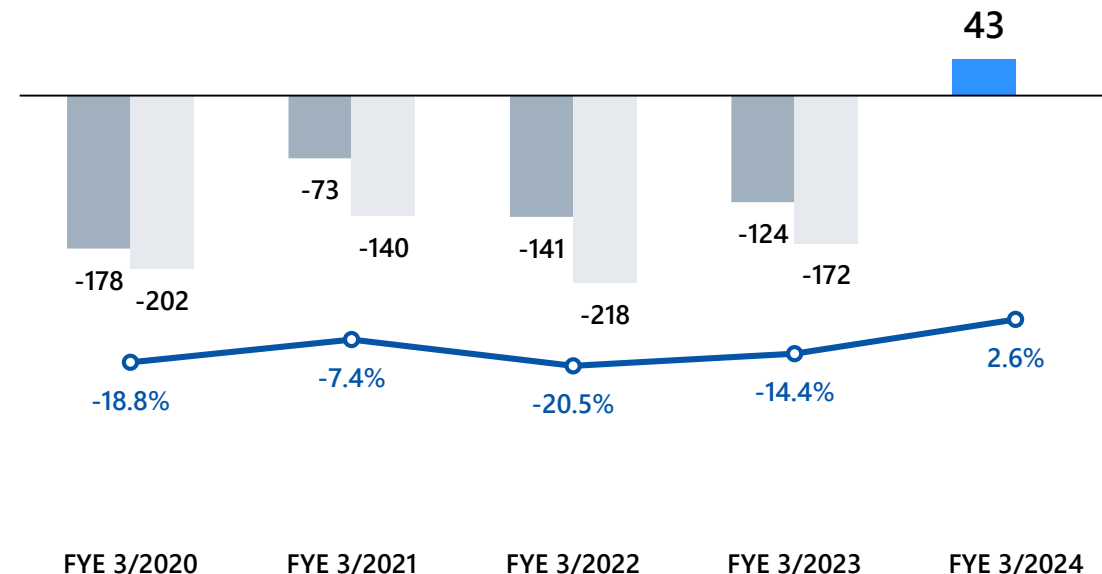


Operating profit

(Millions of yen)

Approx. **¥160 million improve**

■ Q3 ■ Q4 ● Q3 Operating Margin



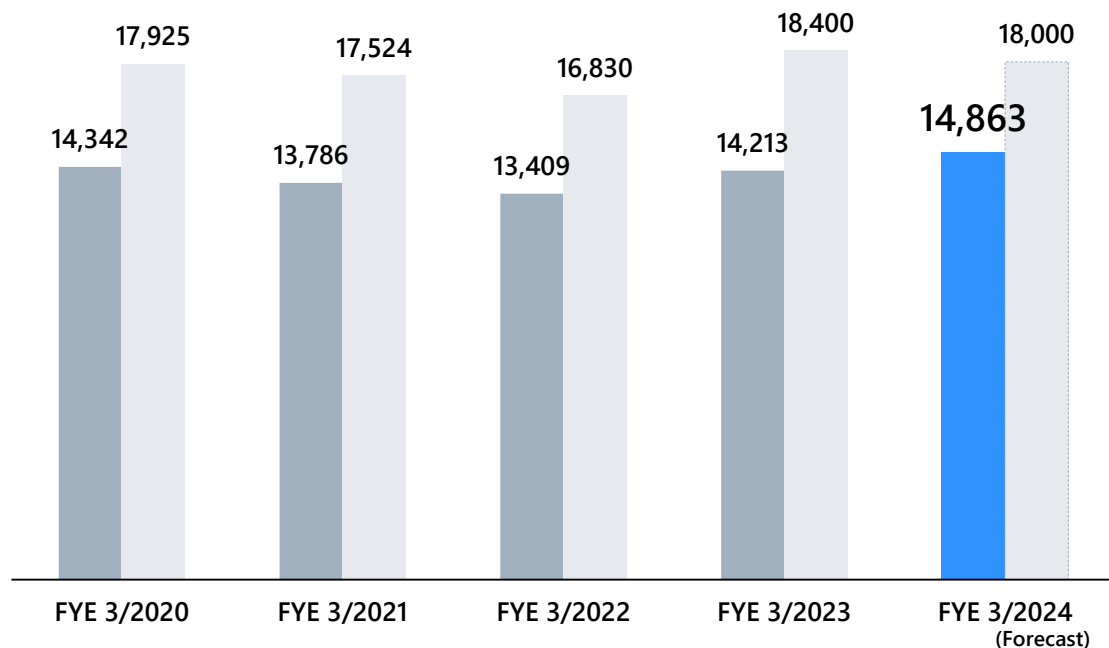
Orders received were up owing primarily to orders for large-scale projects.

Orders received

(Millions of yen)

Approx. **¥640** million increase

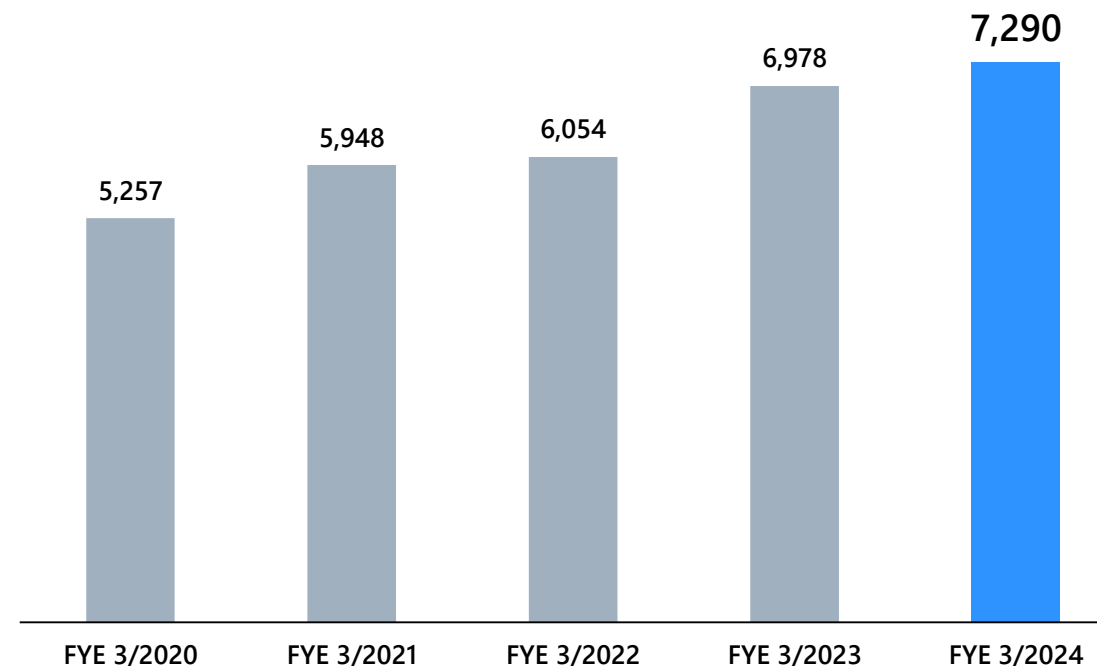
■ Q3 ■ Q4



Order backlog (Q3)

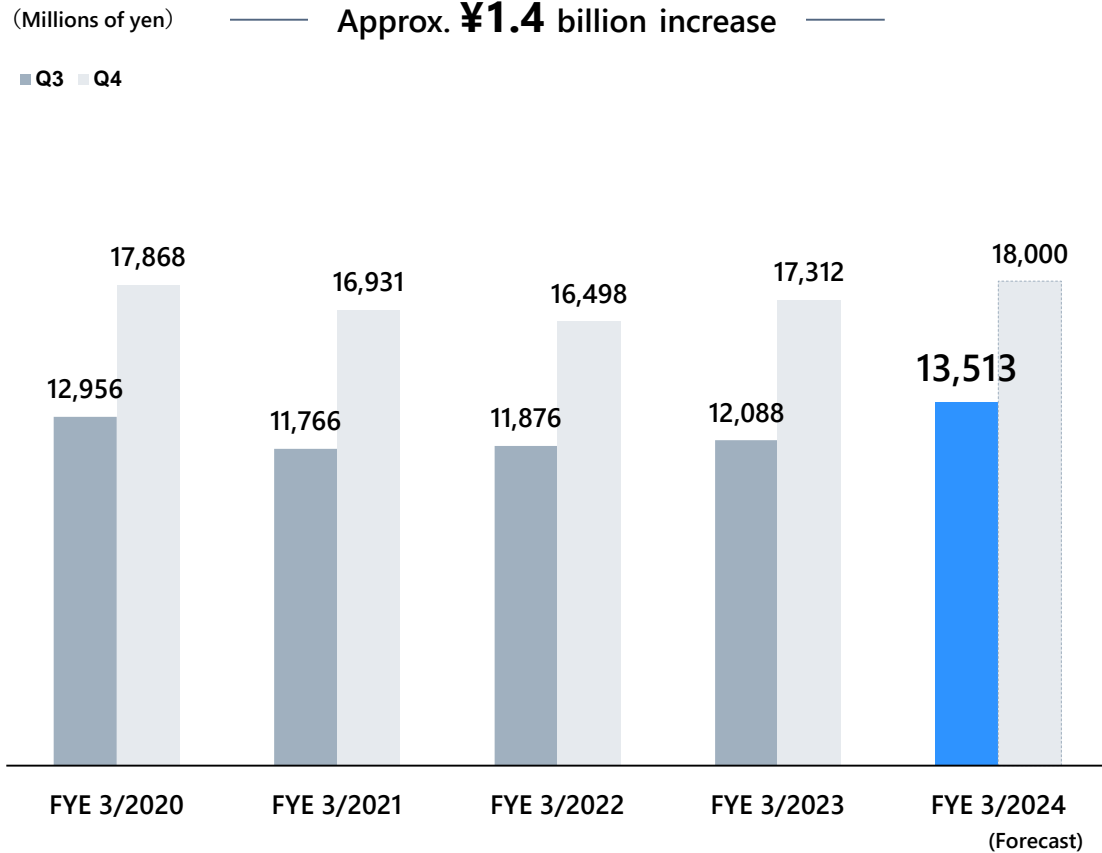
(Millions of yen)

Approx. **¥310** million increase

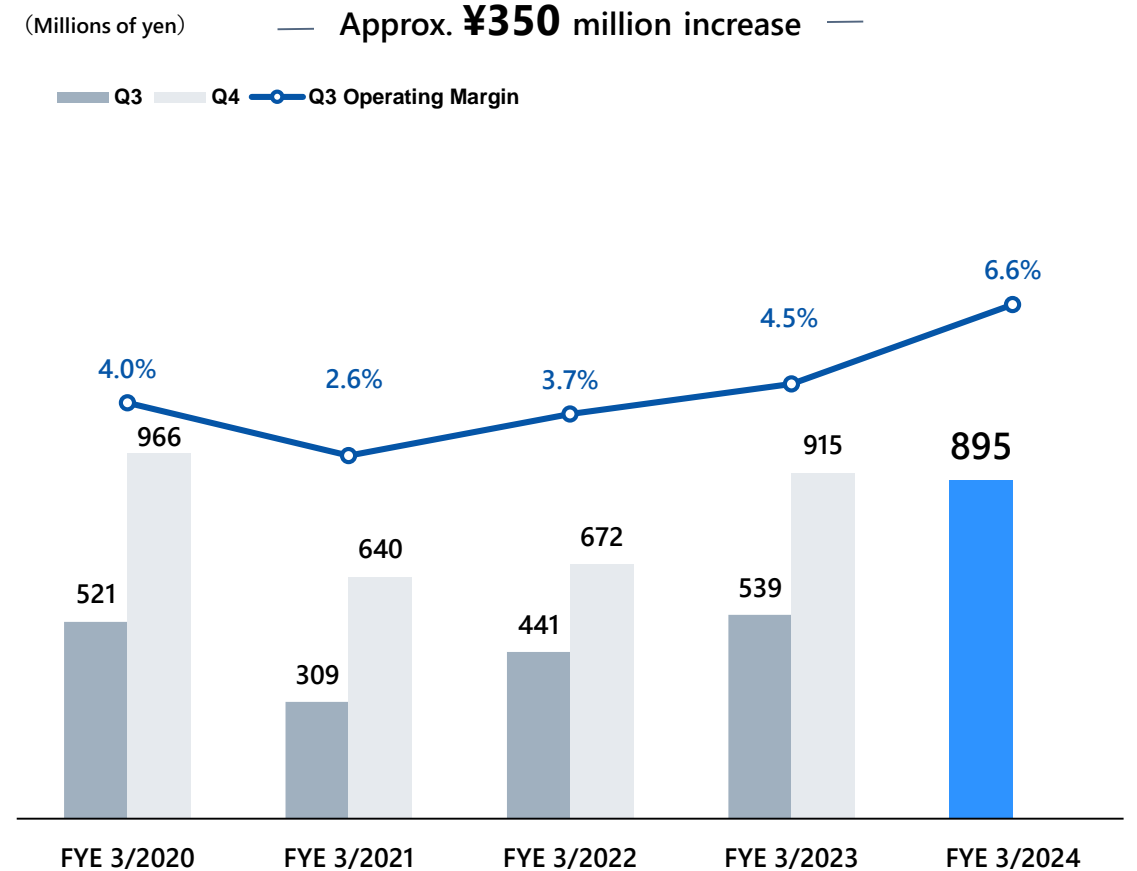


Net sales and operating profit were up owing primarily to progress on projects for which orders were already received and completion of large-scale projects.

Net sales



Operating profit



Orders received were down due to the absence of the large-scale order received in the building equipment business in Q2 of the previous year and a decrease in orders for equipment for the semiconductor industry.

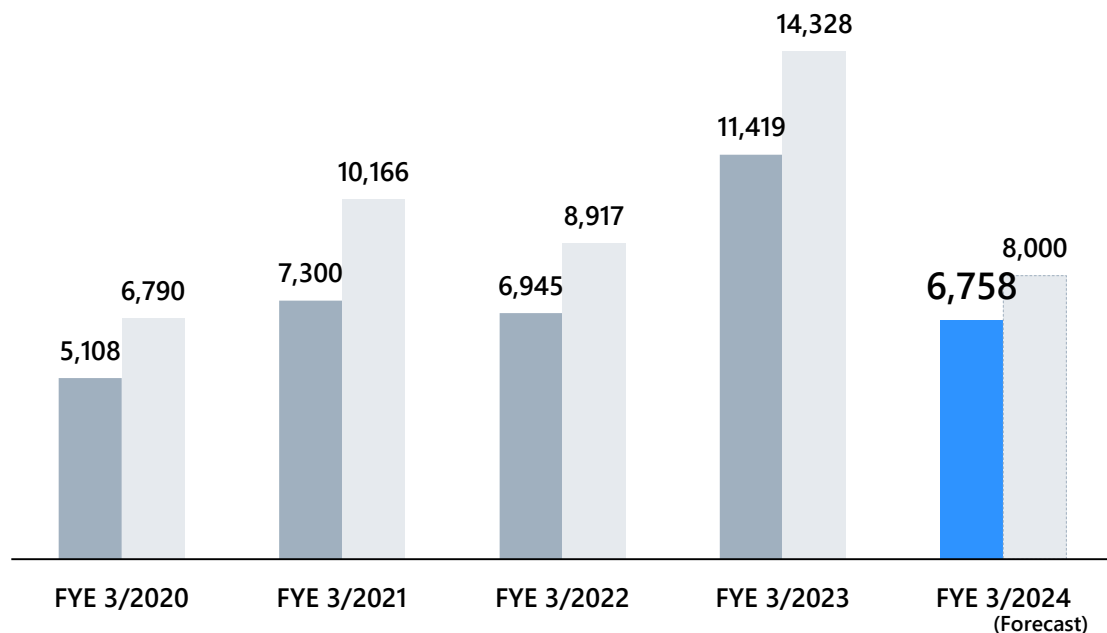
Although demand for semiconductor industrial equipment is expected to increase in the medium to long term, it is currently stagnant.

Orders received

(Millions of yen)

Approx. **¥4.6 billion** decrease

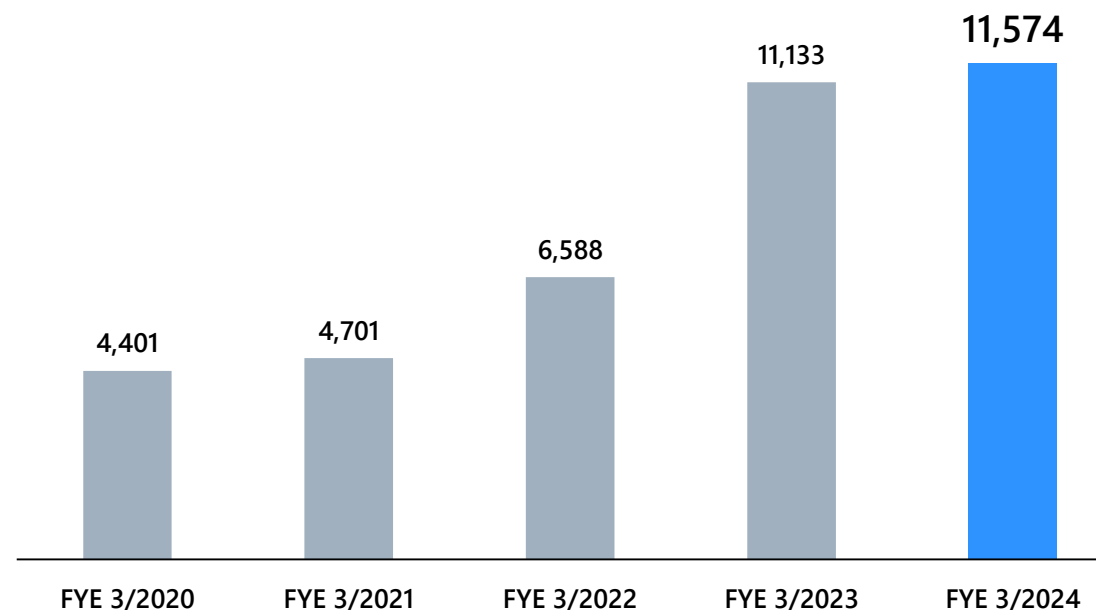
■ Q3 ■ Q4



Order backlog (Q3)

(Millions of yen)

Approx. **¥440 million** increase



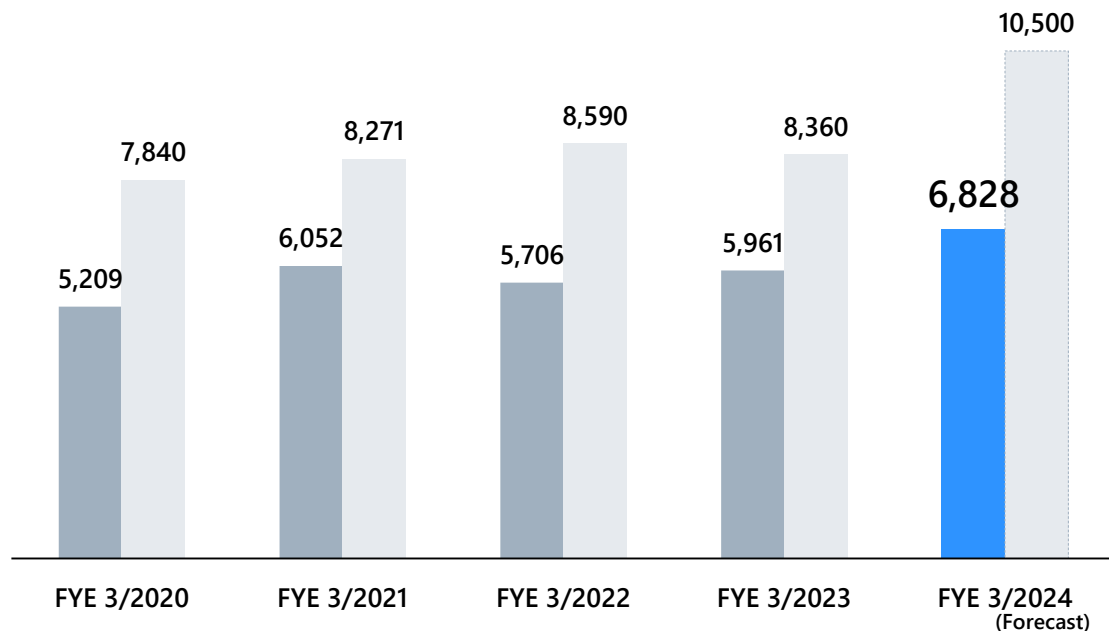
Net sales and operating profit were up owing to progress on projects for which orders were already received.

Net sales

(Millions of yen)

Approx. **¥860** million increase

■ Q3 ■ Q4

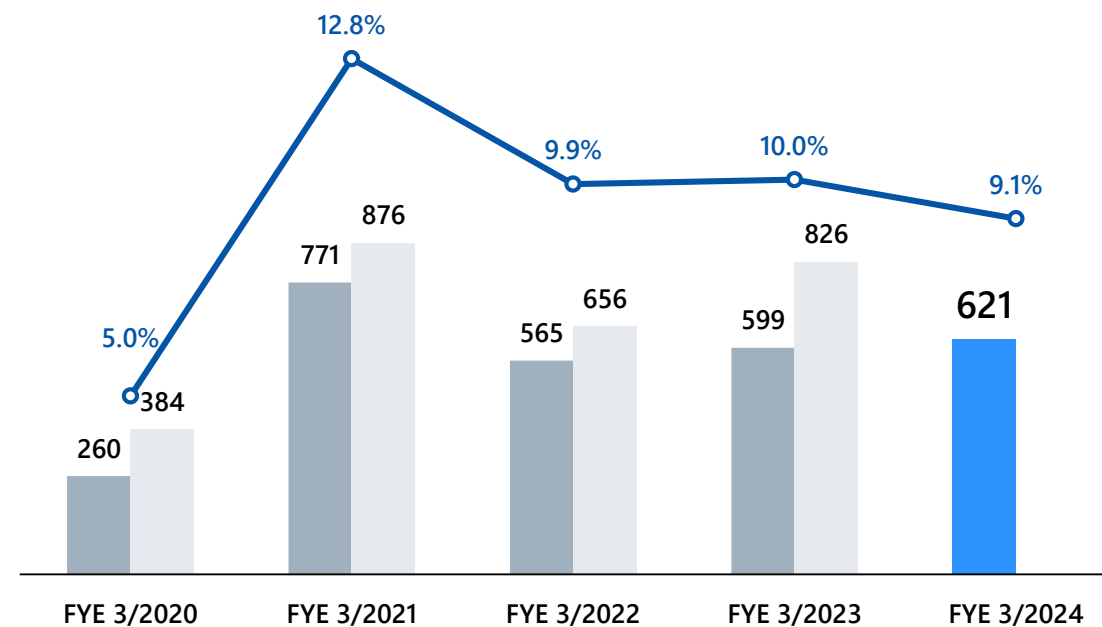


Operating profit

(Millions of yen)

Approx. **¥20** million increase

■ Q3 ■ Q4 ○ Q3 Operating Margin



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No changes from the revised forecast (November 8, 2023) for Q2. Our aim is to maintain orders received at a high level. While sales are expected to be up, profit will be down due mainly to changes in the EPC project mix, increased R&D and human resources investment, and costs for measures in O&M projects.

- Orders received: Demand will be stable for new construction, renewal, and service life improvement of waste treatment plants, biomass power generation plants, and other projects, and we will go after these orders.
- Net sales: Sales will be up with the increase in the Equipment and Systems Business.
- Profit and loss: Profit is expected to fall short of the beginning of year forecast (May 12, 2023) due to a change in the EPC project mix, increased investment in R&D and human resources, increased depreciation at the new Harima Factory associated with operations, and the recording costs for recovery measures in Q2 following an equipment failure in an O&M project at a waste treatment plant (gasification melting furnace) under contract.

(Millions of yen)	FYE 3/2022 (FY2021)	FYE 3/2023 (FY2022)	FYE 3/2024 (FY2023) Beginning of year forecasts	FYE 3/2024 (FY2023) Q2 revised forecasts	Change from previous forecast
Orders received	192,244	168,558	170,000	170,000	0
Order backlog	445,304	471,211	495,211	495,211	0
Net sales	134,092	142,651	146,000	146,000	0
Operating profit	9,928	13,813	11,300	10,300	-1,000
Operating margin	7.4%	9.7%	7.7%	7.1%	-0.6pt
Ordinary profit	10,647	14,684	12,000	11,000	-1,000
Profit attributable to owners of parent	7,434	9,621	8,300	7,700	-600
Profit per share (yen)	91.53	120.22	103.81	96.25	-7.56

(Millions of yen)	FYE 3/2022 (FY2021)	FYE 3/2023 (FY2022)	FYE 3/2024 (FY2023) Beginning of year forecasts	FYE 3/2024 (FY2023) Q2 revised forecasts	Change from previous forecast
Order received					
Total	192,244	168,558	170,000	170,000	0
Domestic Environment and Energy	164,865	130,280	141,500	141,500	0
Overseas Environment and Energy	2,035	5,922	3,000	3,000	0
Package Boiler	16,830	18,400	18,000	18,000	0
Equipment and Systems	8,917	14,328	8,000	8,000	0
Net sales					
Total	134,092	142,651	146,000	146,000	0
Domestic Environment and Energy	108,657	115,985	116,000	116,000	0
Overseas Environment and Energy	1,005	1,351	2,000	2,000	0
Package Boiler	16,498	17,312	18,000	18,000	0
Equipment and Systems	8,590	8,360	10,500	10,500	0
Order backlog					
Total	445,304	471,211	495,211	495,211	0
Domestic Environment and Energy	433,351	447,646	473,146	473,146	0
Overseas Environment and Energy	1,457	6,028	7,028	7,028	0
Package Boiler	4,852	5,940	5,940	5,940	0
Equipment and Systems	5,676	11,644	9,144	9,144	0

* Adjustments are omitted.

Human resources investment, Capital investment and R&D

Actively invest in further business expansion in the future.

- Human resources investment: Strengthen hiring and training of human resources, especially in Construction, Engineering, and Maintenance divisions.
- Capital investment: Capital investment for FYE 3/2022-FYE 3/2024 will be higher than usual due to capital investment at the new Harima Factory.
- Depreciation: Up due to operations at the new Harima Factory. Expected to gradually decrease going forward.
- Research and development expenses: We engaged in R&D, primarily in relation to decarbonization technology. Expenses are expected to increase compared to the previous year due to experiments and installation of testing equipment.

Human resources investment	FYE 3/2019	FYE 3/2020	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024 (Forecast)
Number of employees (people, consolidated)	3,619	3,816	3,925	4,145	4,247	-
Number of employees (people, non-consolidated)	852	875	894	958	1,002	-
Hires (people, non-consolidated)	43	45	62	79	69	50-60

(Millions of yen)	FYE 3/2019	FYE 3/2020	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024 (Forecast)
Capital investment	638	1,564	2,420	3,844	7,100	3,600
Depreciation	797	917	1,036	961	1,136	1,900
Research and development expenses	960	1,154	1,047	1,006	1,150	2,000

(Millions of yen)	FYE 3/2019	FYE 3/2020	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024 (Forecast)
Selling, general and administrative expenses (consolidated)	15,856	16,261	16,326	16,254	17,741	-

Shareholder Return

We expect to achieve our medium-term target (¥36.0 billion in ordinary profit for the three-year period) despite the expected lower profit compared to the beginning of year forecast. Accordingly, we will increase the annual dividend by ¥5 to ¥48 per share as initially planned.

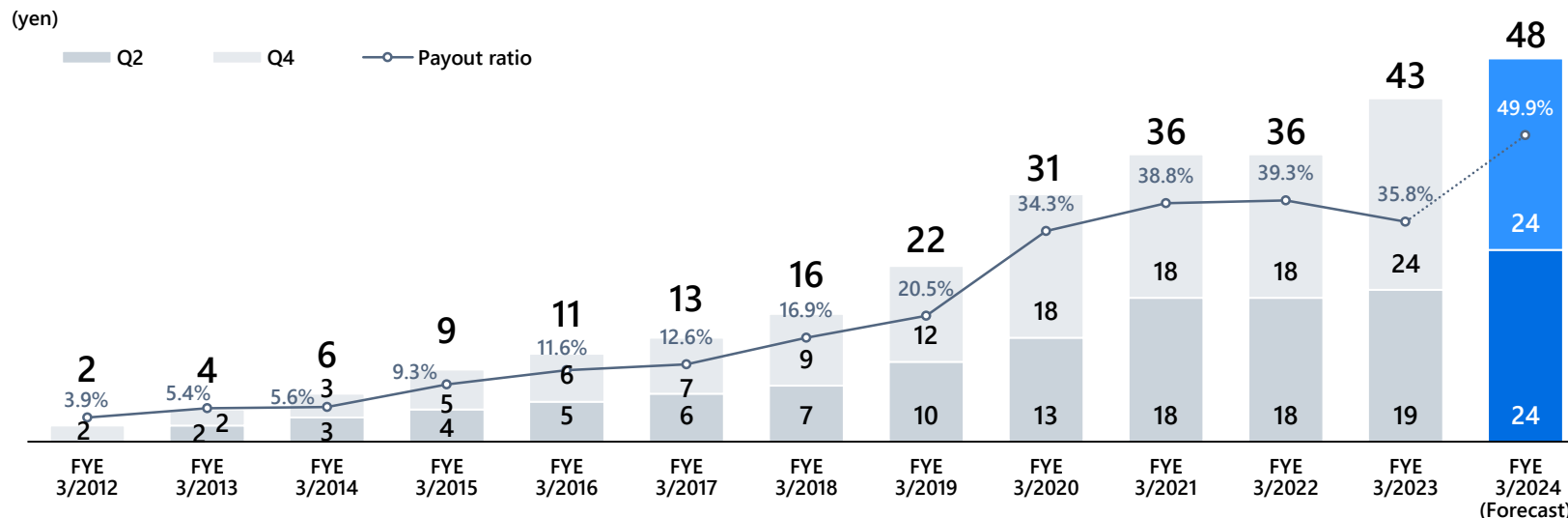
Dividend

Determined based on a comprehensive consideration that includes financial results and conditions in keeping with the policy of maintaining stable dividends.

Purchase of treasury stock

An option to be conducted flexibly based on the stock price and other factors.

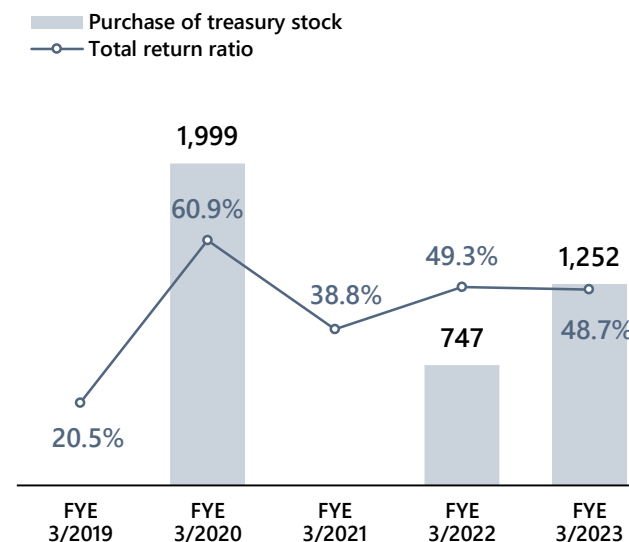
Dividend per share and Payout ratio



*The dividend payout ratio for FYE3/2024 (forecast) is calculated based on the number of treasury shares as of the end of Q2 and results forecast of profit attributable to owners of parent.

Purchase of treasury stock and Total return

(Millions of yen)



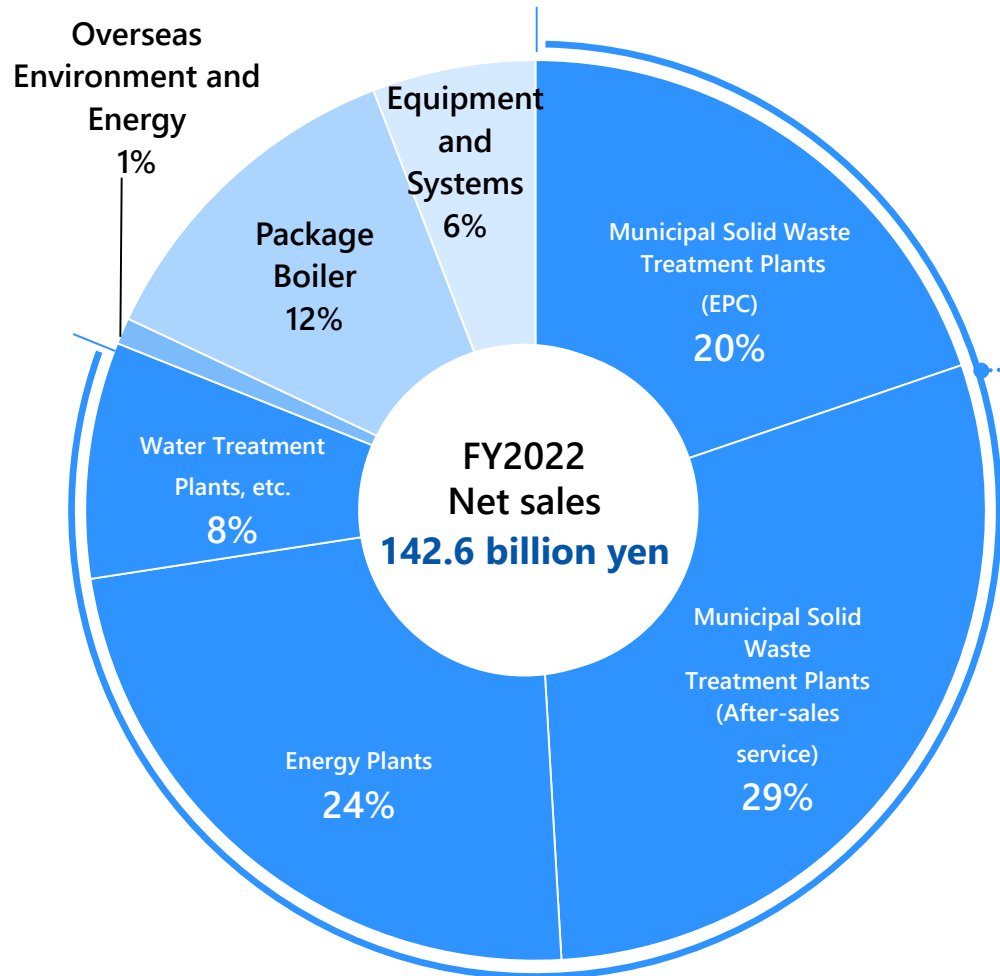
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3. Reference Material

Business Segment

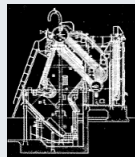
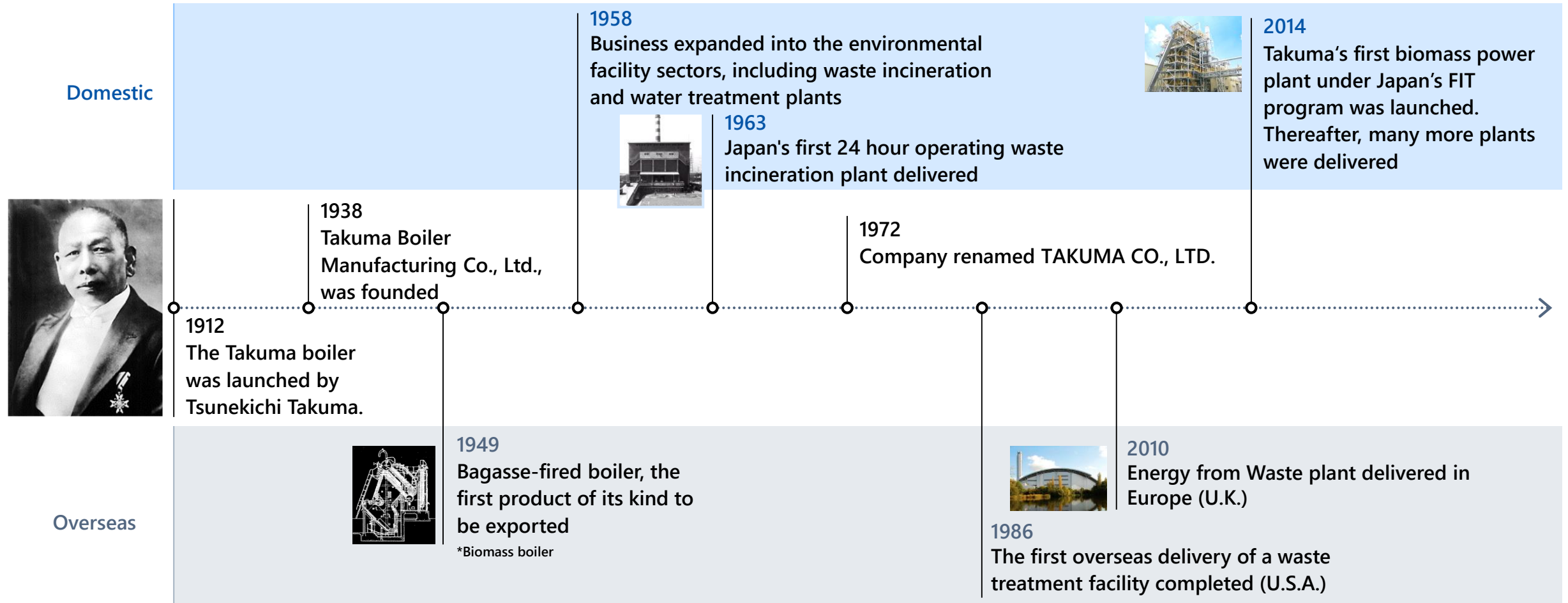
Our business is centered on engineering, procurement, and construction (EPC) and after-sales service of waste treatment facilities, biomass power plants, etc. based on the primary themes of “environment” and “energy”.



Domestic Environment and Energy	Municipal Solid Waste Treatment Plant Business Municipal solid waste treatment plant EPC and after-sales service for municipalities	
	Energy Plant Business Large boiler, biomass power plant, and industrial waste treatment plant EPC and after-sale service for private enterprises	
	Water Treatment Plant Business Sewage treatment facility EPC and after-sale service for municipalities	
	Power Retail Business Supply of electric power procured from delivered power plants and other facilities to public facilities and private companies	
Overseas Environment and Energy	Energy from Waste plant and Energy plant EPC and after-sale service	
Package Boiler	Manufacture and sale of and after-sale service related to heat source equipment such as general-purpose boilers and vacuum-type water heaters	
Equipment and Systems	Sale of and after-sales service related to building equipment (air conditioning, water supply and drainage work, etc.) and products for the semiconductor manufacturing industry	

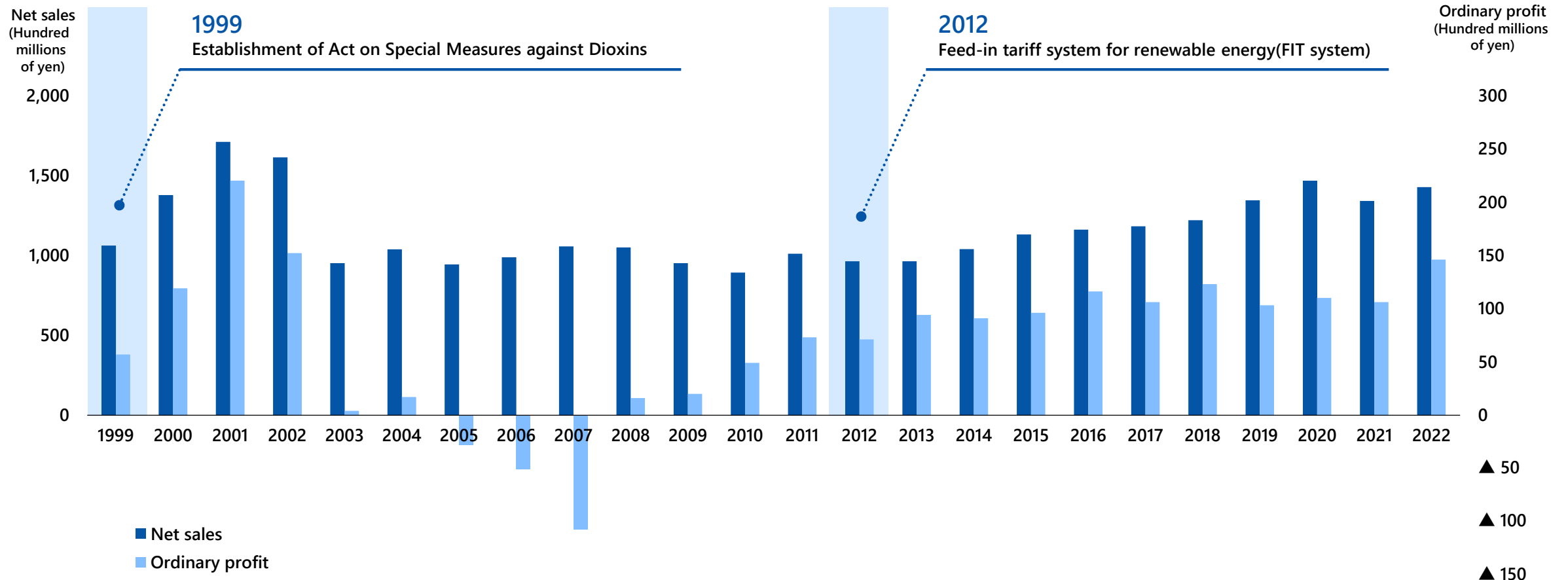
*EPC: Engineering, Procurement, and Construction

In 1912, we invented the first boiler in Japan using purely Japanese technology. While improving boiler technology, the company cultivated combustion and water treatment technologies and utilized them to enter the environmental field, such as waste incineration plants. Since then, we have provided technologies and services for solving customer and societal challenges, primarily in the fields of environment and energy.

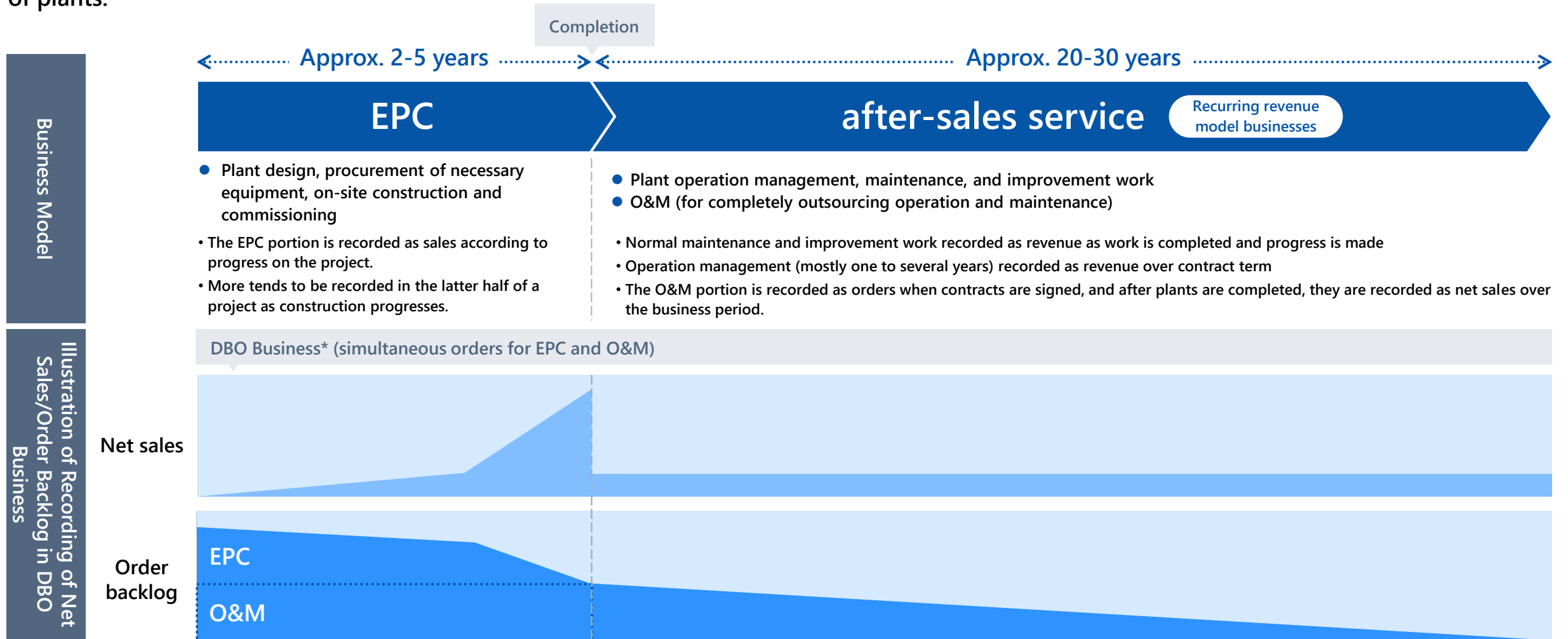


Performance Trends

In the latter half of the 2000s, we focused on after-sales service, which would provide its earnings base. There has been steady demand for renewal and service life improvement of waste treatment plants and an increase in demand for biomass power plants, resulting in stable net sales and profits.



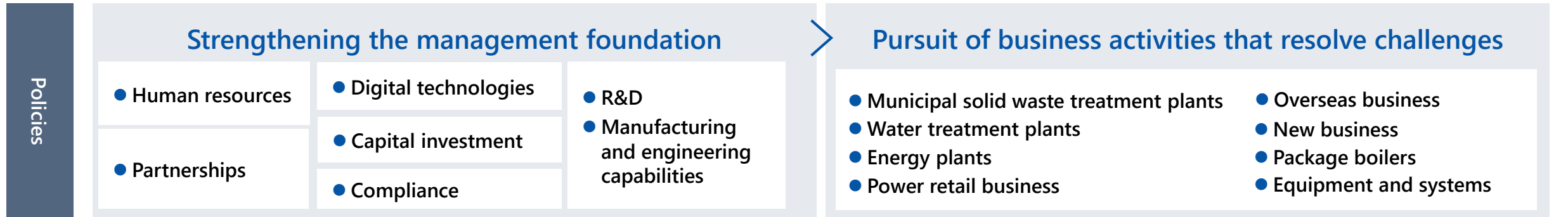
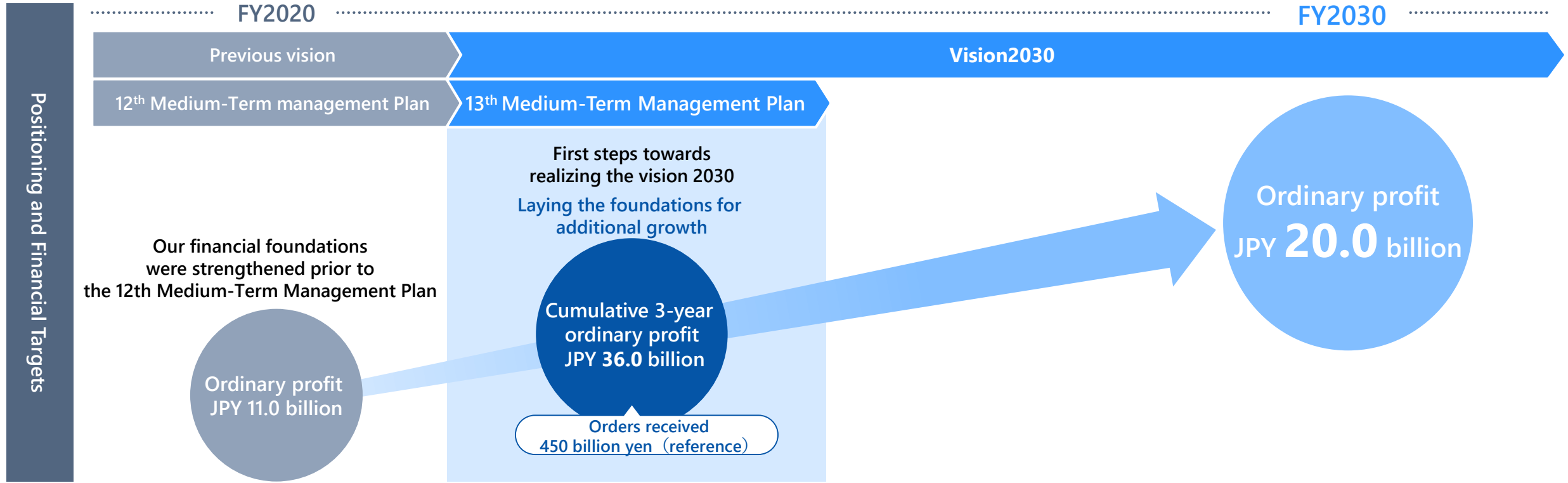
Revenue comes primarily from engineering and construction (EPC*) and after-sales service (operational management, maintenance, O&M*, etc.) of plants.



*EPC:Engineering, Procurement, and Construction

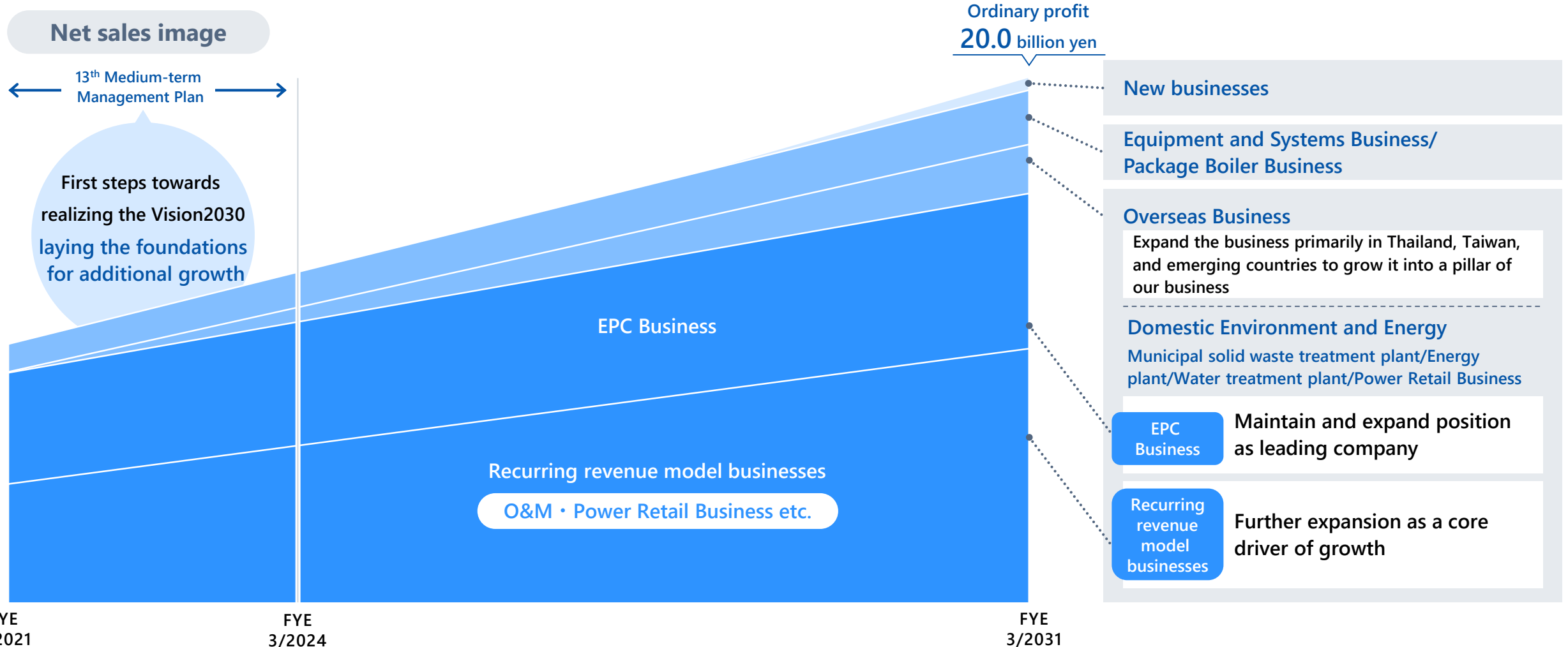
*O&M: A comprehensive contract for Operation & Maintenance of facilities

13th Medium-Term Management Plan (2021-2023)



Medium-to long-term Roadmap

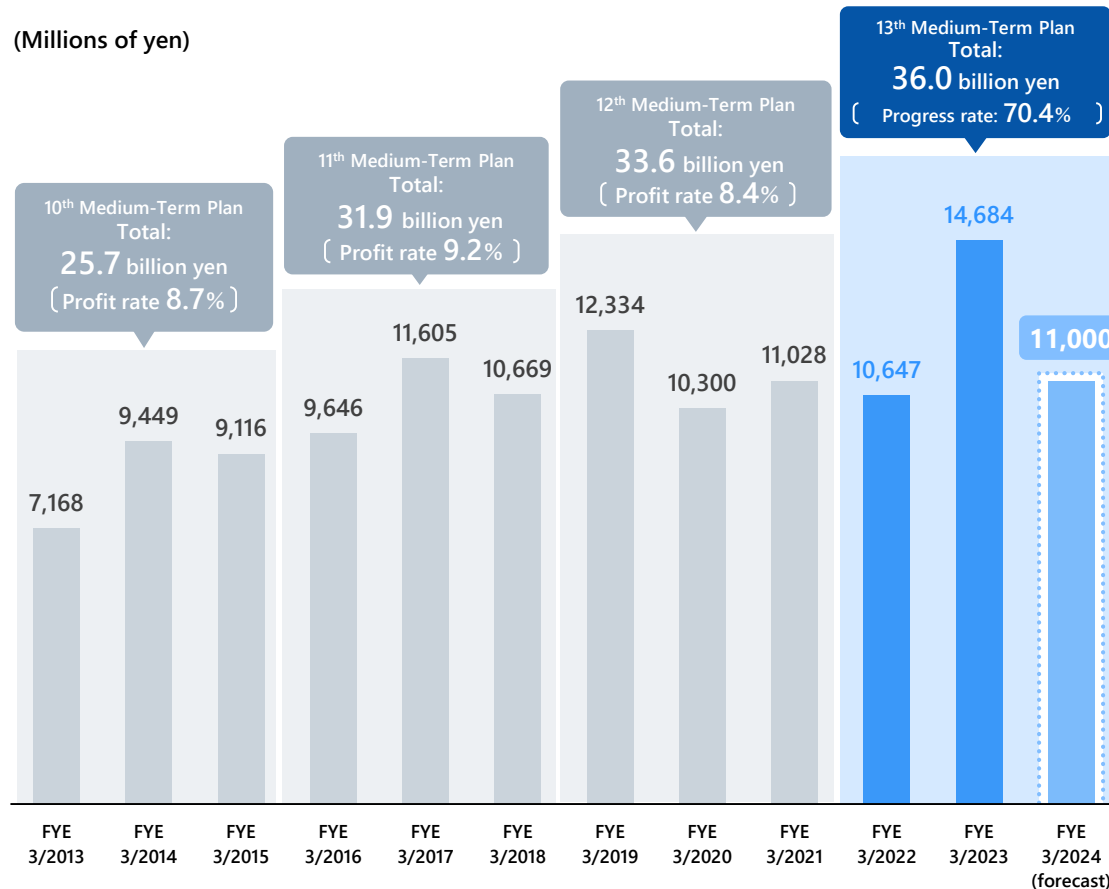
Aiming to maintain and expand the EPC business, while striving for steady growth in each business with recurring revenue model businesses as the core drivers. Aiming to expand business in the environment and energy field through new businesses and M&A.



- Although ordinary profit is expected to fall short of the beginning of year forecast, we expect to achieve the target of ¥36.0 billion for the three-year period.
- Lead times in the EPC Business are long, between three and five years, so single-year performance varies, but orders and profits are growing steadily over the three-year periods of the Medium-Term Management Plans.

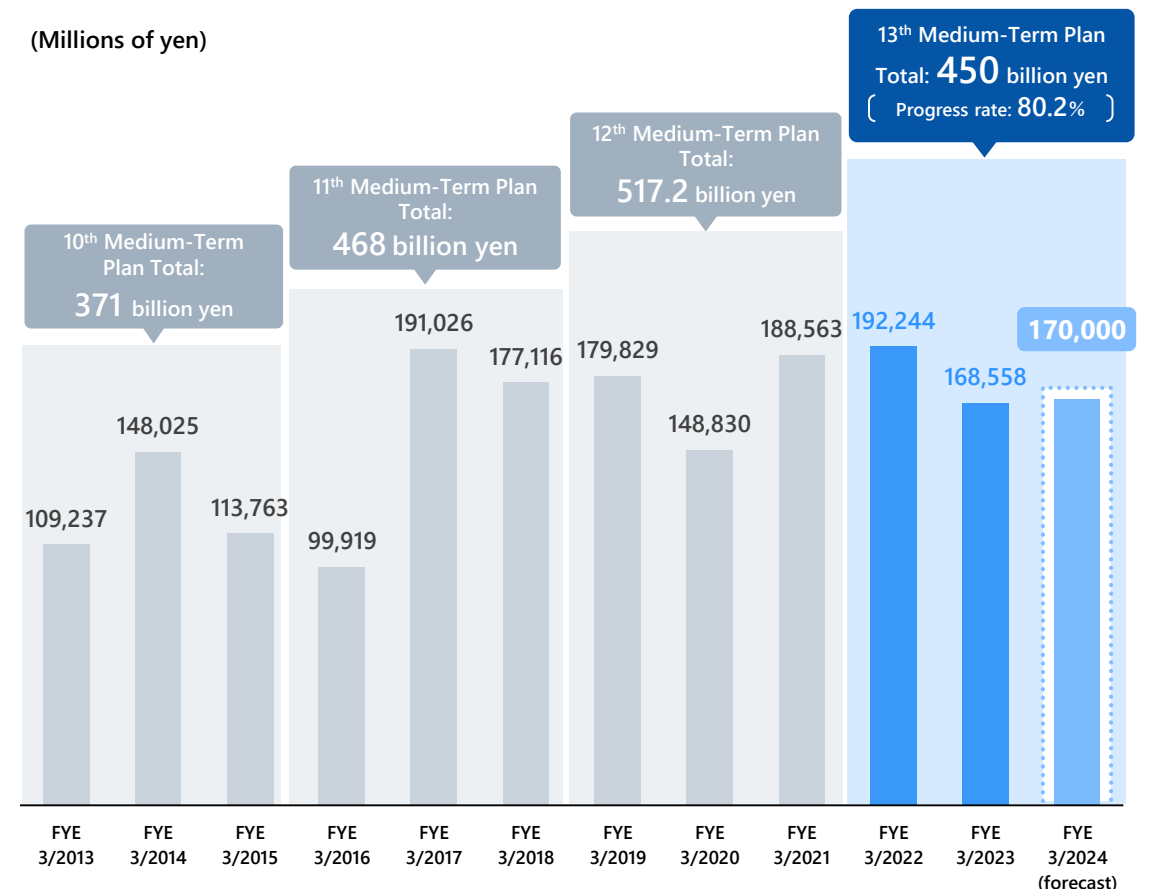
Ordinary profit

(Millions of yen)



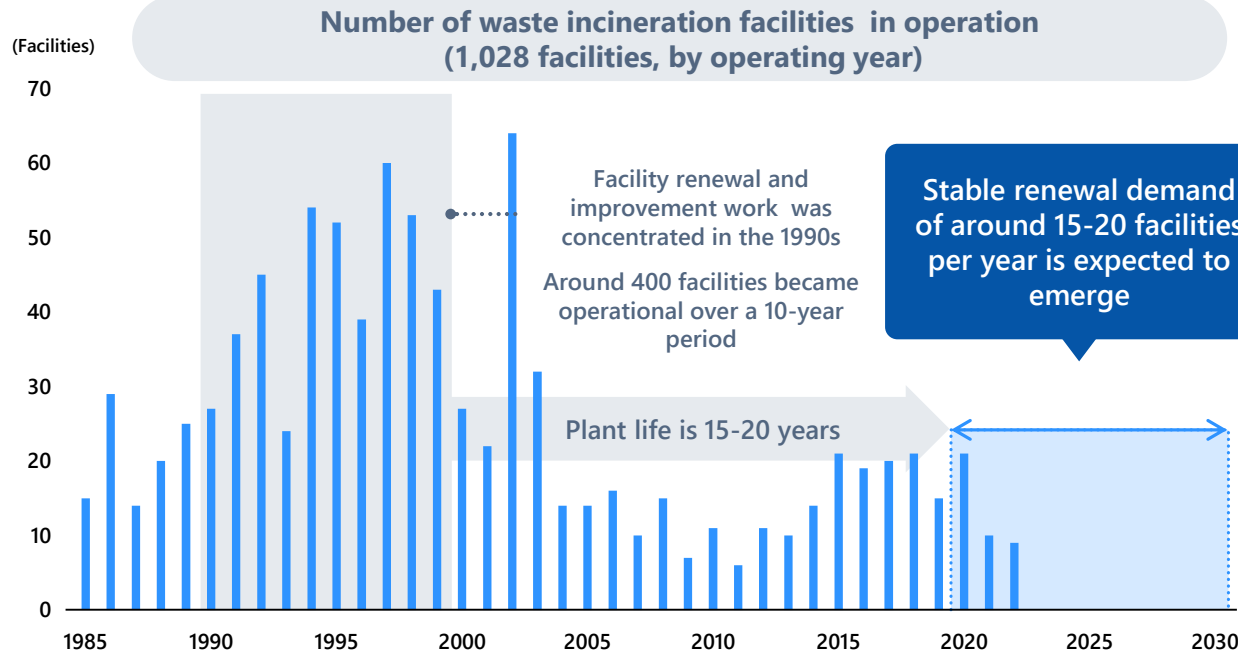
Orders received (reference)

(Millions of yen)

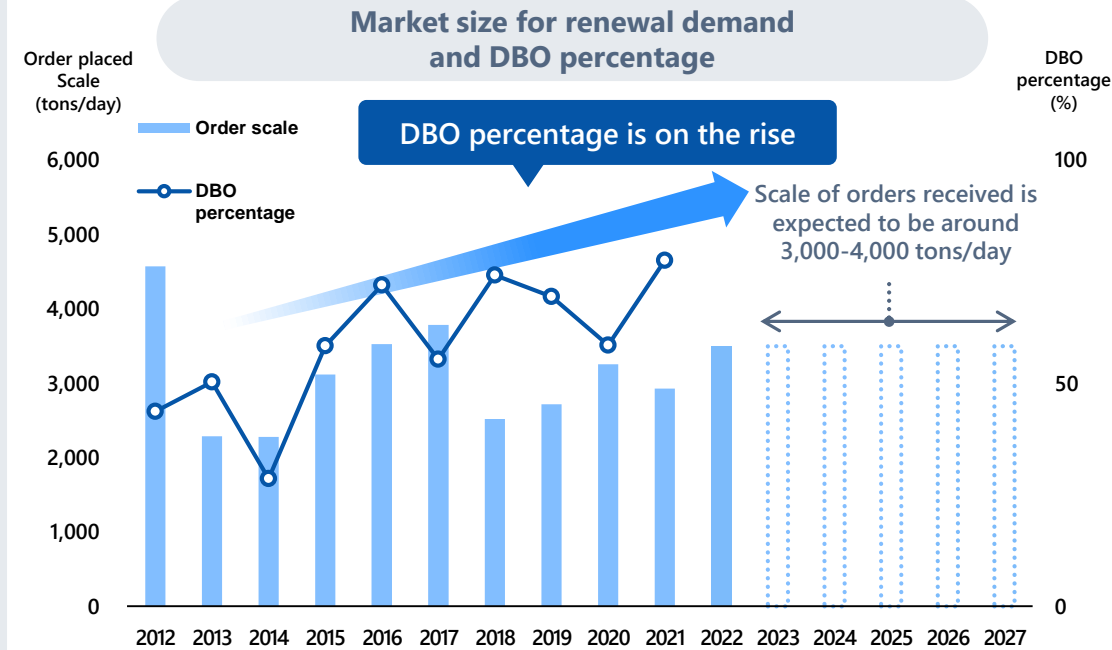


- Demand for renewal and service life improvement will continue due to the aging of waste treatment facilities. We expect renewal demand to continue for the time being.
 - DBO* orders are on the rise utilizing know-how from the private sector. We expect this to continue.
- ※DBO: Stands for Design, Build, Operate. A method of contracting private companies for the design, construction, and operation of facilities, paid for by public funds.

External Environment



Source: Prepared by the Company based on the "2021 Survey of Municipal Solid Waste Treatment" by the Ministry of the Environment.
*Includes facilities under construction and where operations have been suspended.



*Based on internal research *DBO percentage does not include PFI method such as BTO (four BTO projects since 2010)

Internal Environment

- Strengthening our proposal capabilities for meeting regional needs leveraging our technology and expertise based on our extensive track record of delivery (approx. 370 facilities).
- Fine tuning existing core technologies through R&D and enhancing our strengths by incorporating the latest technologies such as AI and IoT.

Situation by Segment

Domestic Environment and Energy Municipal solid waste treatment plants

Business
Strategy

TAKUMA

Focus on winning ongoing orders through comprehensive proposals tailored to diversifying needs.

Results

Steadily landing orders for EPC/O&M. Long-term O&M (contract period of 10 years or more) ratio in order backlog of Municipal solid waste treatment plant business is about 60%. In addition to maintaining and expanding the EPC Business, we expanded our recurring revenue model businesses.

Future policy

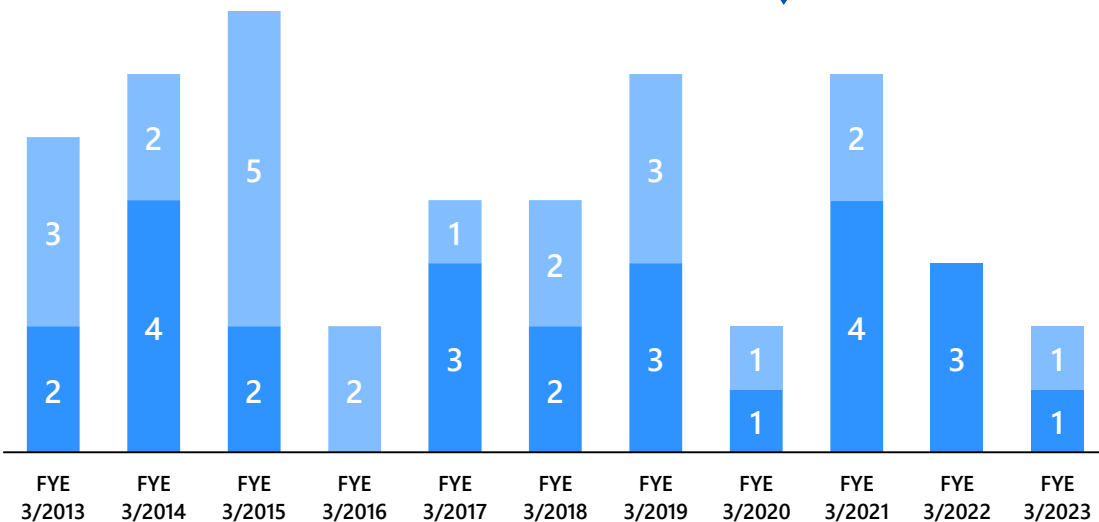
We will continue to differentiate ourselves by strengthening our proposal capabilities in areas other than price, centering on our technological capabilities, and aim to land two-three renewal projects orders per year on an ongoing basis.

EPC orders

(Projects)

- Primary equipment improvement work
- New construction/renewal

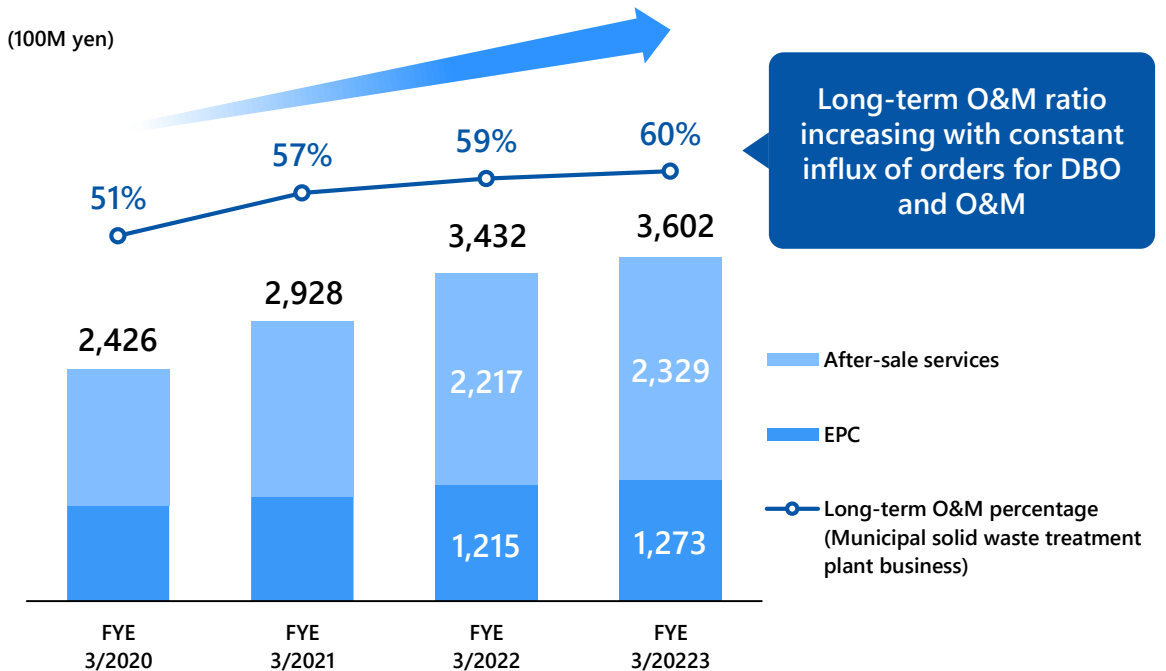
Aiming to build up orders through expansion of resources in addition to steady orders



Order backlog

(100M yen)

Long-term O&M ratio increasing with constant influx of orders for DBO and O&M



Aiming for sustainable growth of recurring revenue model businesses by strengthening O&M proposals.

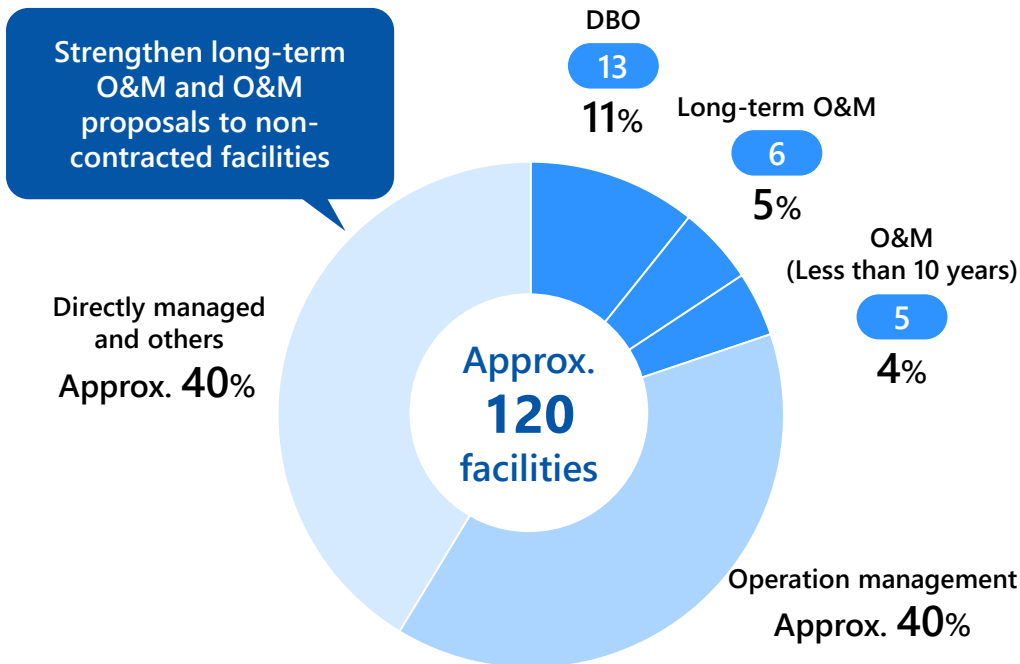
Results

As of the beginning of FY2023, we had received orders for long-term O&M (contract period of 10 years or more) at 25 facilities, 19 of which are currently in operation. Operation management will gradually begin at remaining six.

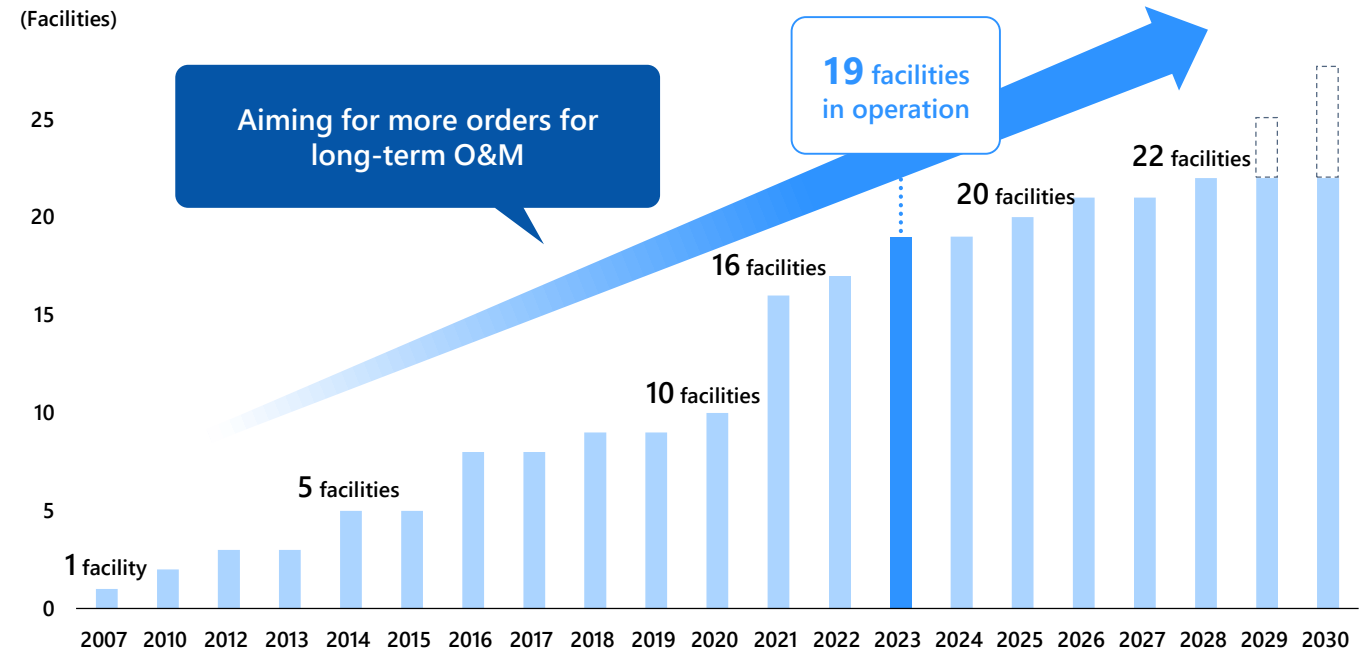
Future policy

In addition to capturing ongoing demand for annual after-sale services, we aim to grow its recurring revenue model businesses by strengthening O&M proposals to non-contracted facilities.

Number of municipal solid waste treatment facilities in operation at beginning of FY2023



Number of long-term O&M (more than 10 years, including DBO and BTO projects etc.) contracts (results and forecasts)

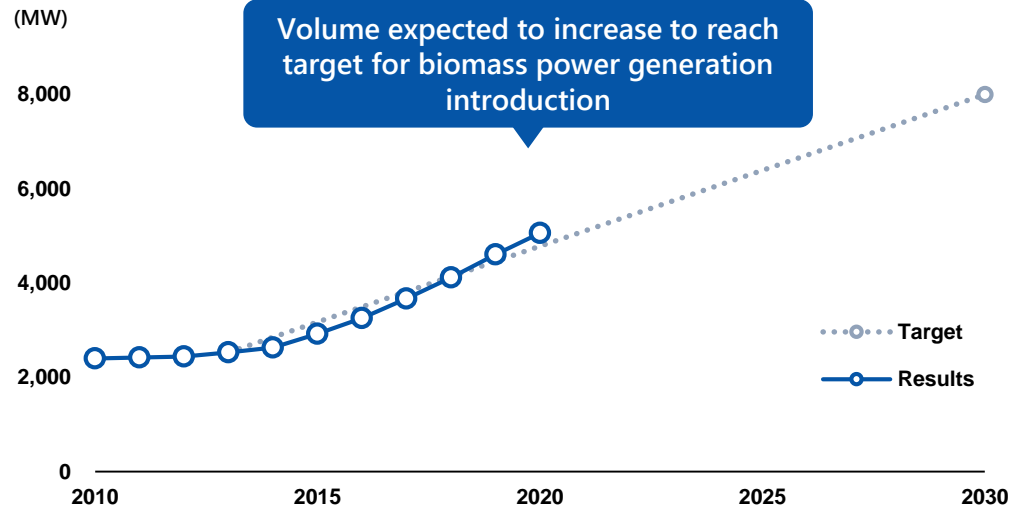


*Accumulation based on contract period of existing projects. The total does not come to 25 facilities because the contracts for some projects will expire before others begin operations.

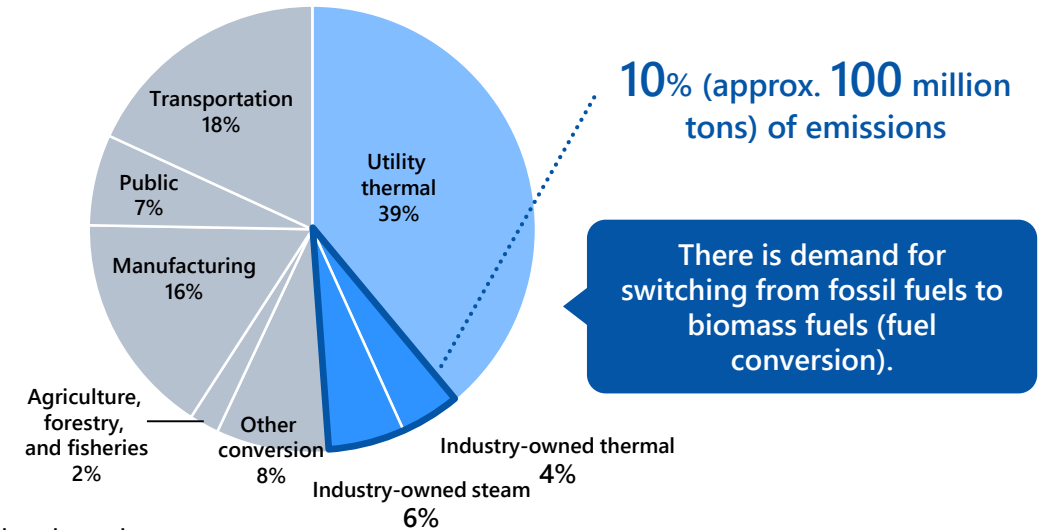
- Demand for small- and medium-sized biomass power generation, mainly from domestic fuels (such as unused timber), continues, driven by government policies for decarbonization and soaring energy prices.
- Despite the risk of rising costs for stable procurement and distribution of fuels, the Company expects investment needs mainly in the paper and lumber industries.
- Plans based on FIT^{*1} (output: small- and medium-sized biomass power generation of 2-10 MW) are the main focus, but plans based on FIP^{*2} are also gradually emerging.

External Environment

Domestic biomass power generation introduction volume^{*3}



Japan's energy-derived carbon dioxide emissions^{*4}



*1. Feed-in Tariff *2. Feed-in Premium is where a certain premium (subsidy amount) is added to the price of electricity sold on the market.
 *3. Source: 6th Basic Energy Plan from "Handbook of Energy and Economics Statistics 2022" by Institute of Energy Economics, Japan
 *4. Source: 2021 results from "Comprehensive Energy Statistics" by Ministry of Economy, Trade and Industry

Internal Environment

- We have delivered many boilers and plants for a wide range of fuels and waste.
- We possess combustion technology, high-efficiency power generation technology, and plant design capabilities for difficult-to-burn fuels and waste materials.
- We are strengthening research and development to address new fuels and waste.

Focus on steady orders for biomass power plants and other energy plants.

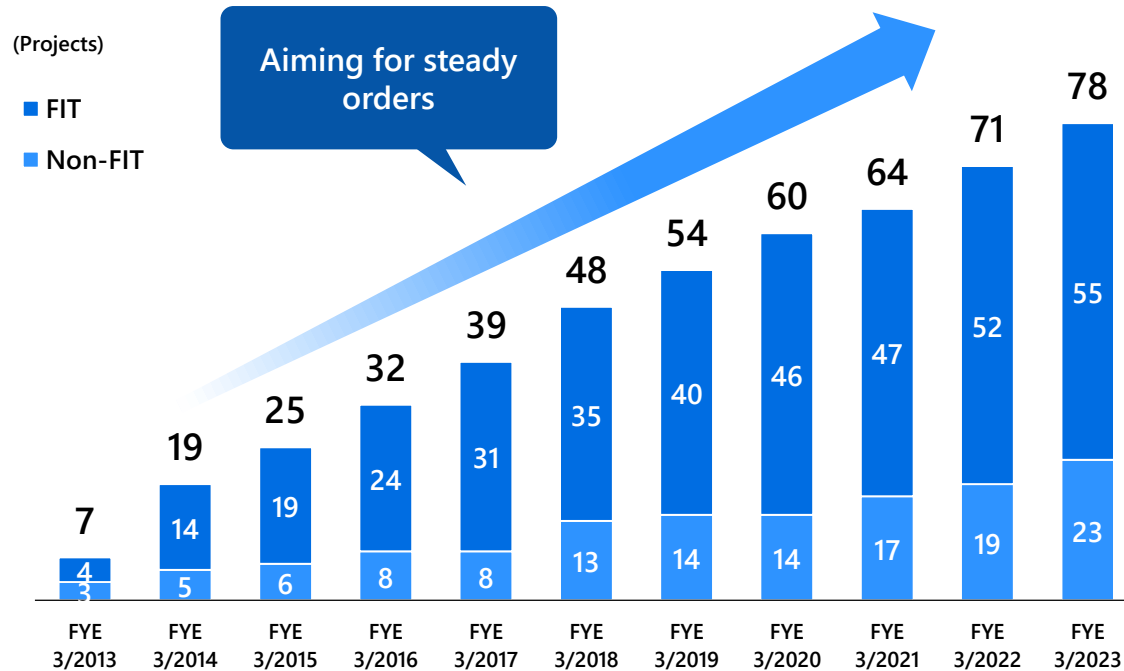
Results

Since the start of the FIT program in 2012, we have received orders for 78 facilities nationwide. Maintenance orders have been received for many of the delivered projects. Long-term O&M orders have been received for three of these, contributing to an increase in revenue.

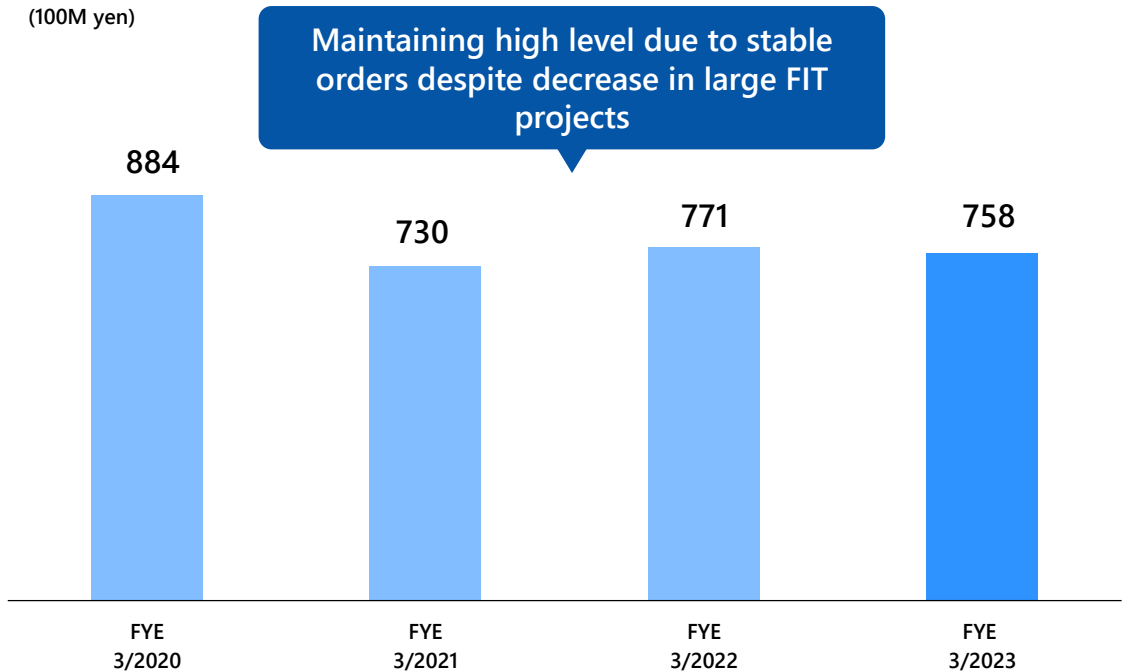
Future policy

With EPC, the aim is to continue winning orders, particularly for biomass power generation plants. In recurring revenue model businesses (after-sales service), we will aim for growth by proposing solutions for energy savings, functional improvement, and service life extension, in addition to regular maintenance.

Orders received (cumulative)



Order backlog



Situation by Segment

Domestic Environment and Energy Water Treatment Plants

Since entering the water treatment field in 1962, we have contributed to solving our customers' challenges with unique products based on our accumulated technology and expertise.

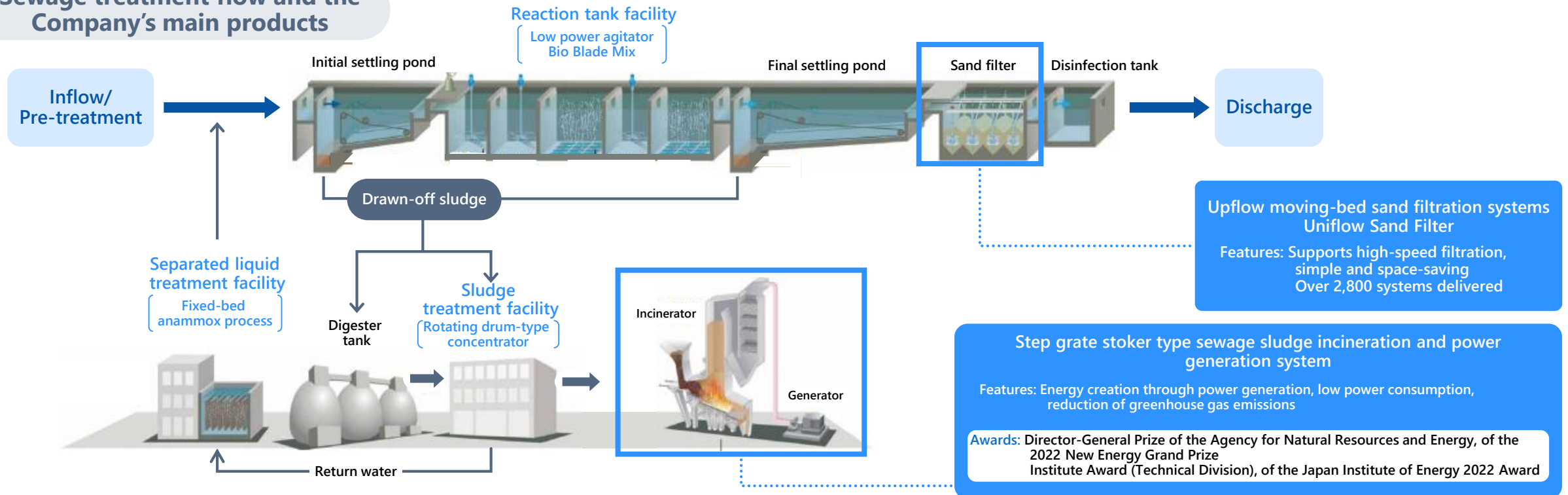
Business Environment

In addition to renewal and service life improvement demand due to aging sewage treatment plants, demand for reduction of greenhouse gas emissions and effective utilization of biomass sewage sludge is growing in the sewage treatment field. Our step grate stoker type sewage sludge incineration and power generation system received two awards in FY2022 for CO₂ reduction, energy saving, and energy creation.

Future policy

Focus on securing ongoing orders with mainstay products (step grate stoker type sewage sludge incineration and power generation system and sand filtration systems) that have high environmental performance and meet customer needs.

Sewage treatment flow and the Company's main products



Situation by Segment

Domestic Environment and Energy Power Retail Business

Contributing to stabilizing customers' electricity rates and reducing greenhouse gas emissions through the procurement and supply of electricity generated at delivered plants.

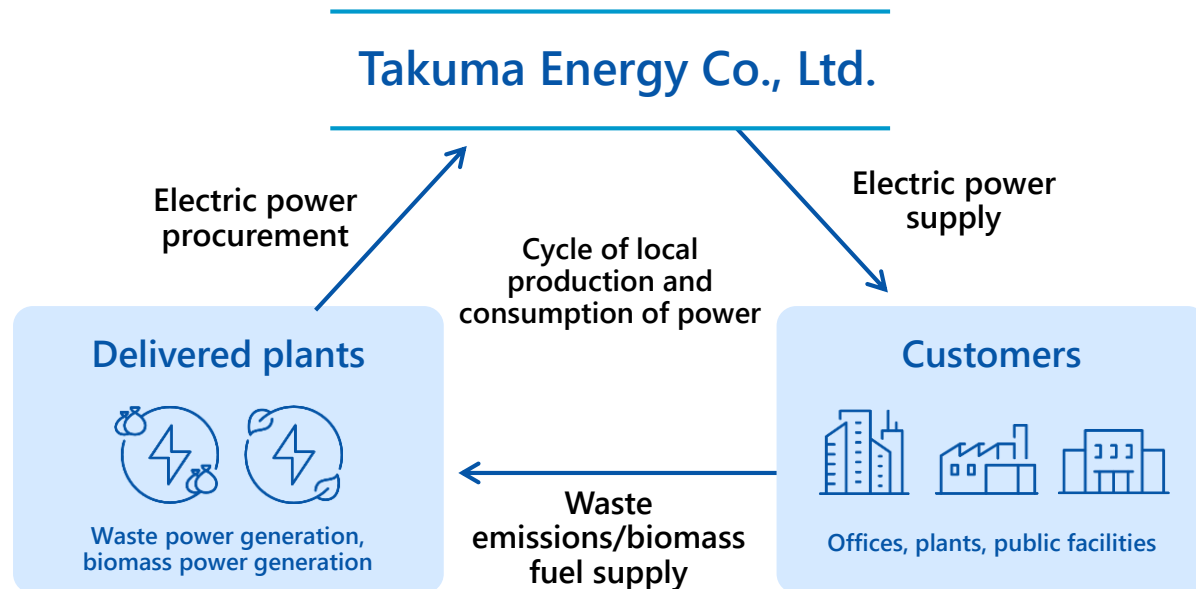
Business Environment

Demand is increasing for renewable energy and CO₂-free electricity for decarbonization. Demand is also increasing for local production of electric power for local consumption.

Future policy

Leverage strength in stable power procurement to promote the supply of electric power to areas near power sources and to environmentally conscious customers.

Example of services provided (local production of electric power for local consumption)



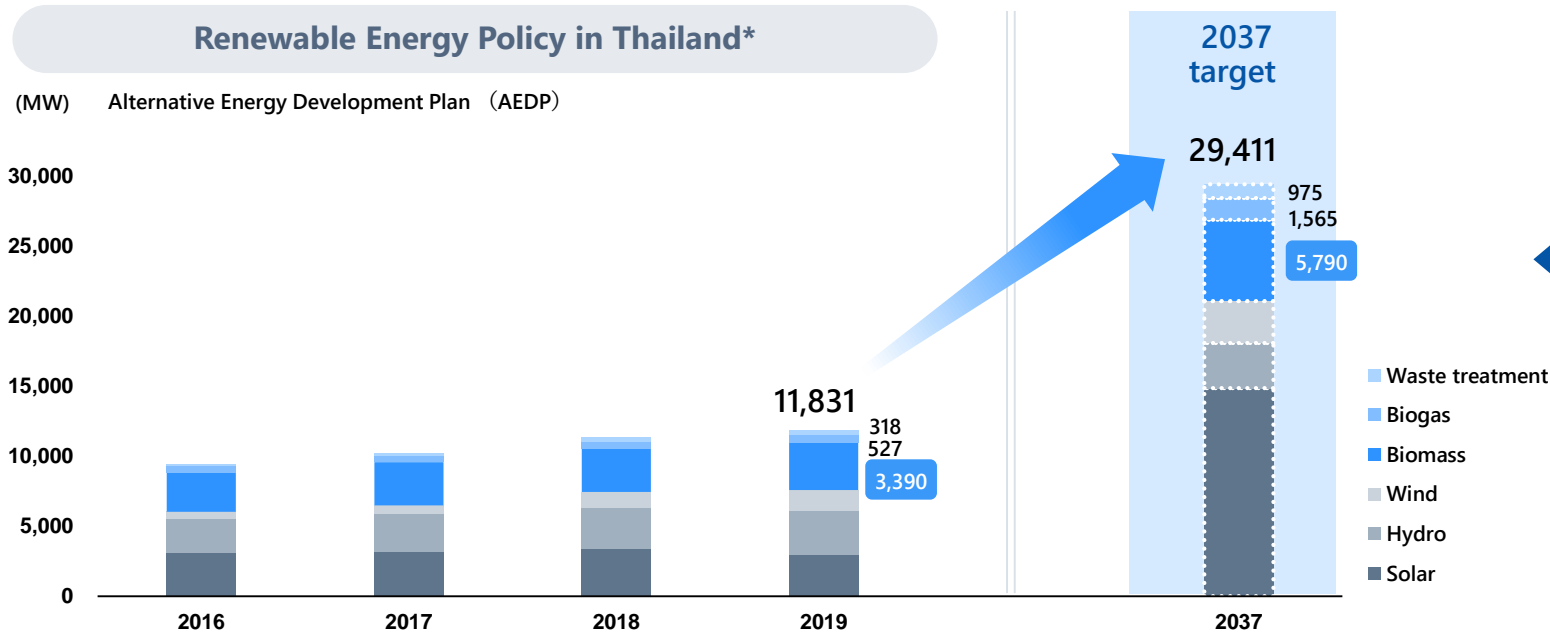
Main project

	Provided to	Main supplier	Start
Local production for local consumption/ supply of CO ₂ -free electric power	Kunohe Village, Iwate	Iwate-Kenpoku Clean Co., Ltd.	Apr 2022-
	Imabari City, Ehime	Imabari City Clean Center	Apr 2022-
	Machida City, Tokyo	Machida City BioEnergy Center	Apr 2022-
	Kurume City, Fukuoka	Miyanojin Clean Center	Jan 2023-
	Kitahiroshima-cho, Hiroshima	Kawakoda Micro Hydro Power Plant *Not delivered by us	Aug 2023-

- Population growth and economic growth in Southeast Asia have increased demand for biomass power generation and waste treatment plants.
- Demand for the construction of bagasse* combustion boilers for sugar mills is particularly high in Thailand. Demand for biomass power generation is expected to grow, partly due to government promotion of renewable energy.
- In Taiwan, demand for facility renewal and service life extension is expanding due to the aging of waste power plants.

*Bagasse: fiber remaining after sugarcane is crushed

External Environment



Alternative Energy Development Plan (Thailand)
 Increase share of renewable energy in final energy consumption to **30.0% by 2037**

Internal Environment

- Established subsidiaries in Thailand and Taiwan. We have a track record of plant construction and maintenance services in each country.
- Building optimal schemes for each project through partnerships with local companies.

Focus on securing continuous orders for biomass power generation plants and Energy from Waste plants and improving the system.

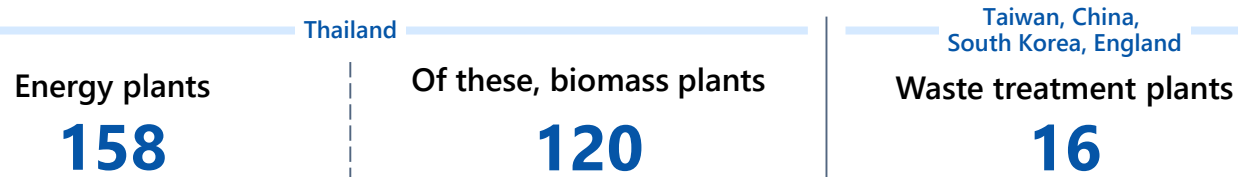
Results

Promoted the development of a system to win orders via local subsidiaries in Thailand and Taiwan, and won 3 orders in FY2021-2022.

Future policy

Expand partnerships with local companies to increase orders in Southeast Asia and Taiwan. Aim to achieve profitability and growth by continuing to receive at least one to two new construction orders per year through cost reductions achieved by expanding the scope of overseas procurement, and differentiating based on stable operation, high-efficiency technology, and enhanced maintenance services.

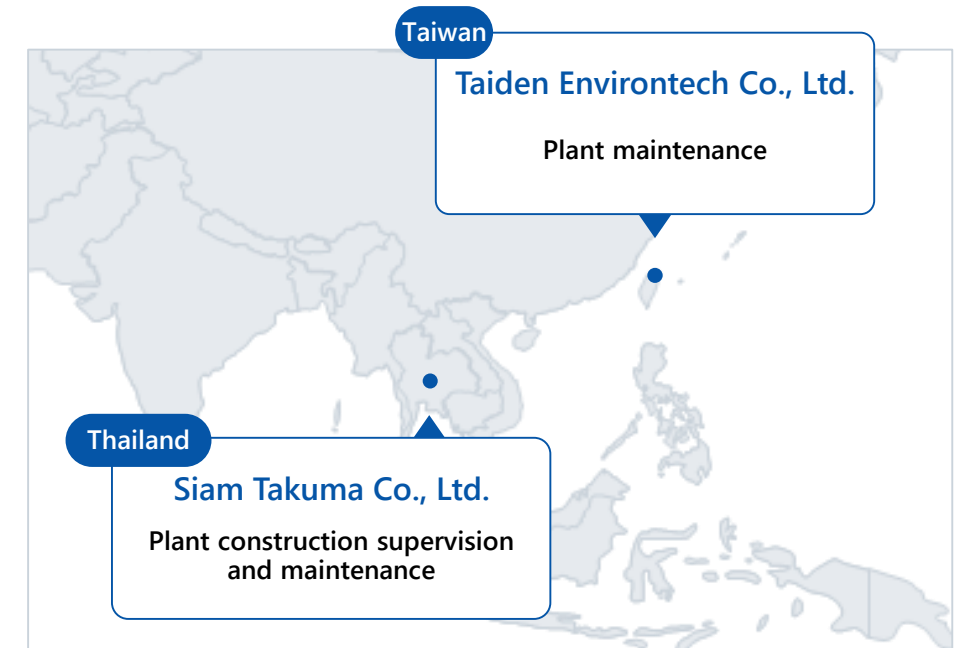
Deliveries (cumulative)



Main project

	Year		Delivered to (Honourifics omitted)	Description	Scale	Scheduled Completion
Energy from Waste plant	FYE 3/2022	Q3	TA-HO LU-TSAO ENVIRONMENT CO., LTD. (Taiwan)	Stoker upgrade	900 t/day	Nov 2024
Waste treatment plant	FYE 3/2023	Q4	Company A (Vietnam)	New construction	427 t/day	Sep 2025
Energy plant	FYE 3/2023	Q4	Company B (Thailand)	New construction	-	Mar 2025

Local subsidiaries (2 companies)



Package Boiler Business

Domestic market has matured, but we expect a certain level of demand for renewal and other work to continue for the time being.

We aim to expand the scale of orders by addressing higher efficiency, energy-saving, and decarbonization needs such as electric air-conditioning and biomass boilers and by expanding its overseas business.

Group company



Manufacture and sale of and after-sale services for steam boilers, hot water heaters, and other heating products

Main products



Once-through boilers



Vacuum-type water heaters



Hybrid hot water supply systems



Biomass boilers



Hydrogen-fired vacuum-type water heaters

Equipment and Systems

Building equipment business

Robust demand is expected to continue due to the aging of various facilities. The Company will continue to further strengthen its sales and construction capabilities by securing and training human resources, thereby steadily expanding the scale of orders.

Semiconductor industrial equipment business

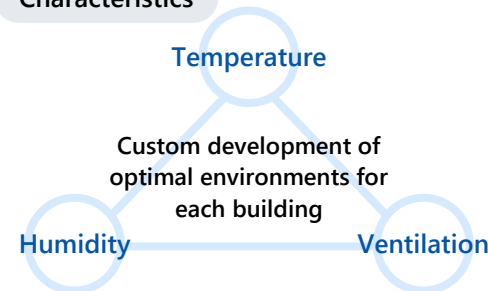
The market is growing due to the trend toward digitalization. The Company will enhance its competitiveness through customized product development in collaboration with universities and customers.

Group companies



Design and construction of air conditioning and plumbing equipment for buildings

Characteristics



Sale of and after-sale services for various semiconductor industrial systems

Main products



Chemical filters



AMC environmental concentration analyzers

Actively invest in further business expansion in the future.

Human Resources Investment



FY3/2023 (results)

69 people hired

(non-consolidated)

+44 people compared to previous year

Continuing to expand hiring and human resource development

New TAKUMA Building (Training Center) was built for the human resource development.

* 10/2020 completed

R&D



FY3/2024 (forecast)

2.0 billion yen

+850 million yen compared to previous year

Expanding investment with a focus on fine-tuning core technologies and decarbonization technologies

Capital investment



FY3/2024 (forecast)

3.6 billion yen

-3.5 billion yen compared to previous year

Completed investment in New Harima Factory, which began operations in January 2023. Will demolish the old factory and construct a warehouse building in FY3/2024.

*Total investment about 13 billion yen

Partnerships/ Digital technologies



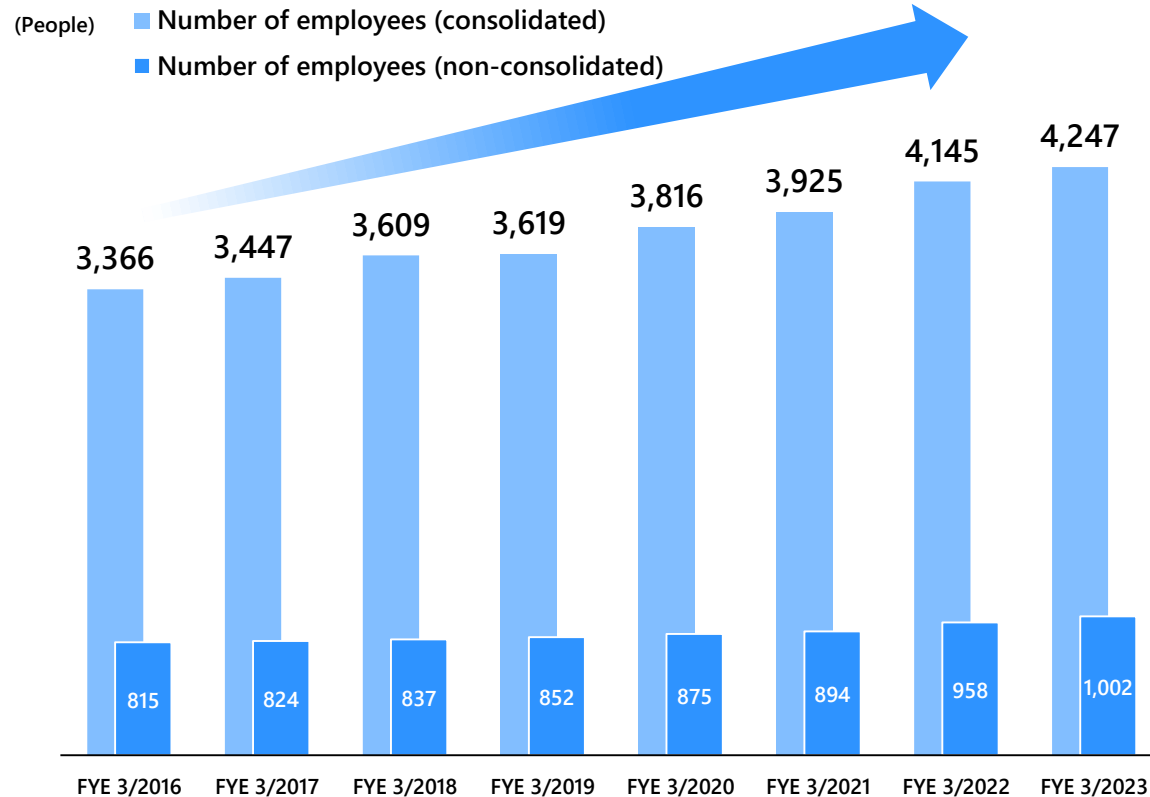
Seeking investment opportunities to develop new businesses and strengthen the competitiveness of/achieve labor savings in existing businesses

Strengthening the management foundation

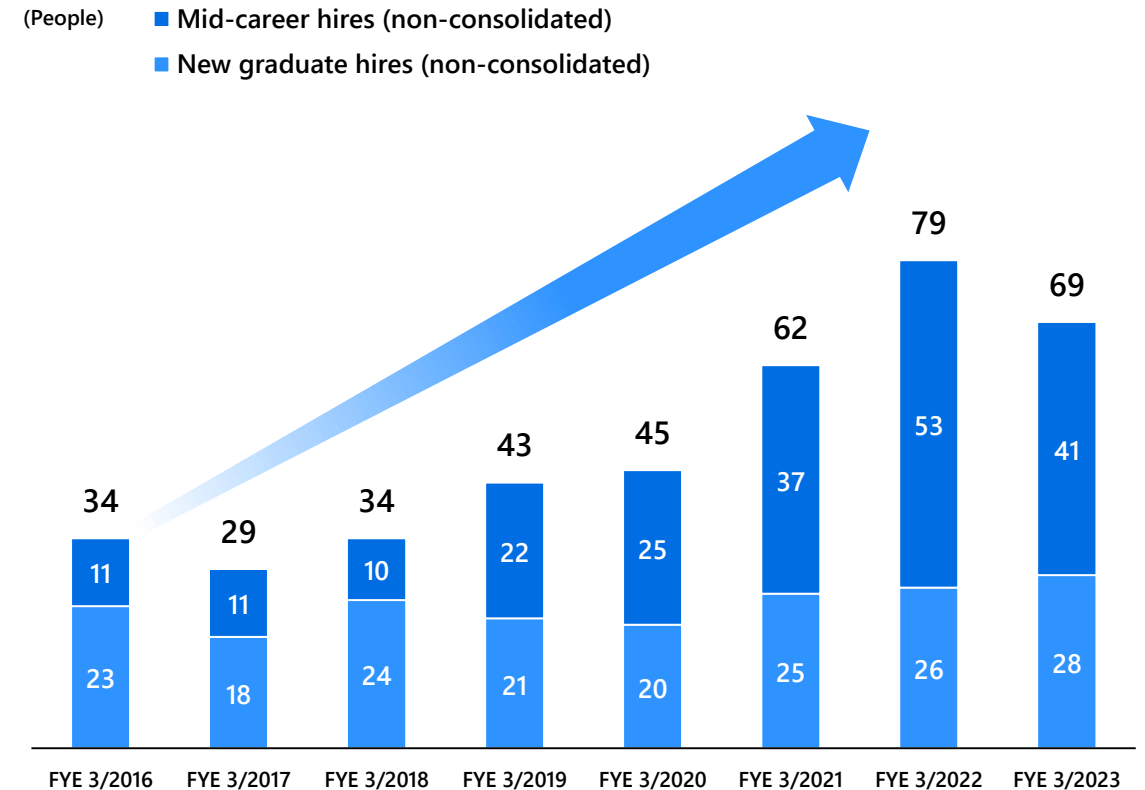
Human Resources Investment

Strengthen hiring and training of human resources to pass on our greatest strength, our technological capabilities, and expand our resources. Continue hiring and training efforts, especially in Construction, Engineering, and Maintenance divisions.

Number of employees

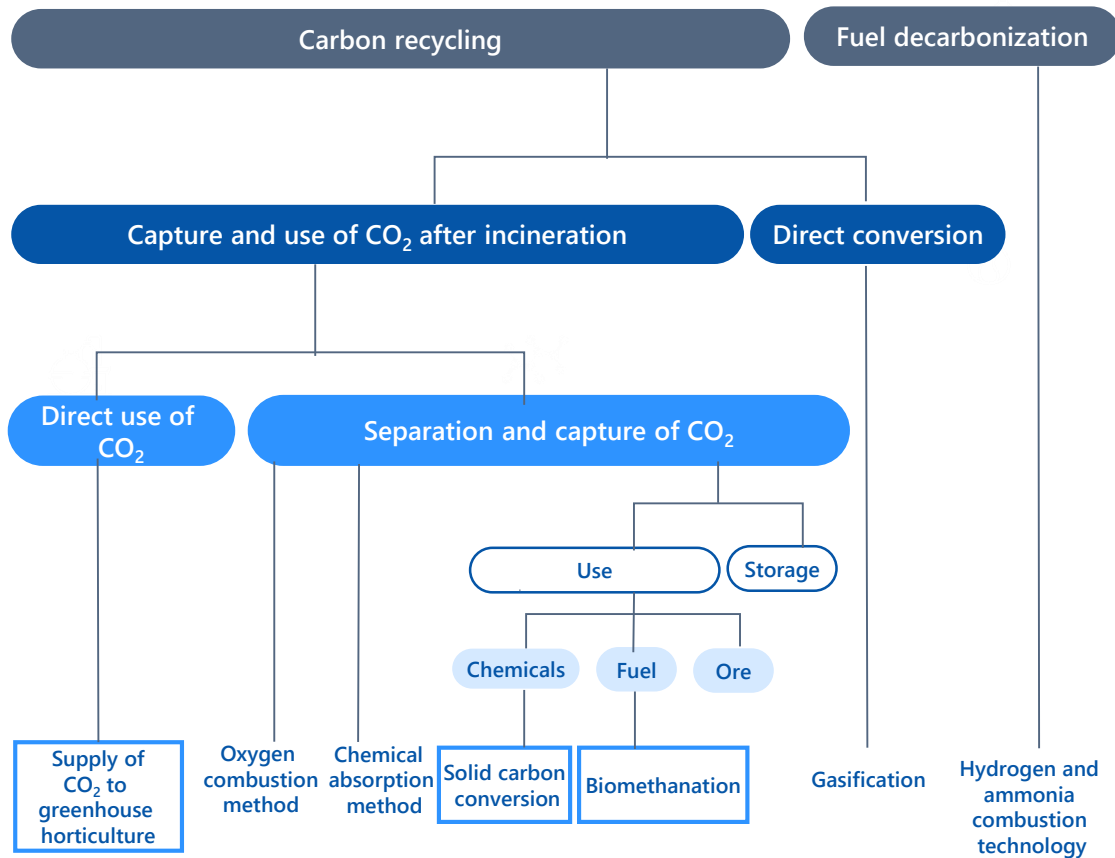


Number of new hires



In addition to fine tuning existing technologies, we will strengthen R&D focusing on CCUS and carbon recycling technologies to realize a decarbonized society.

R&D roadmap for decarbonization technologies



Examples of our technology/R&D

Agricultural use of CO₂ from flue gas purification

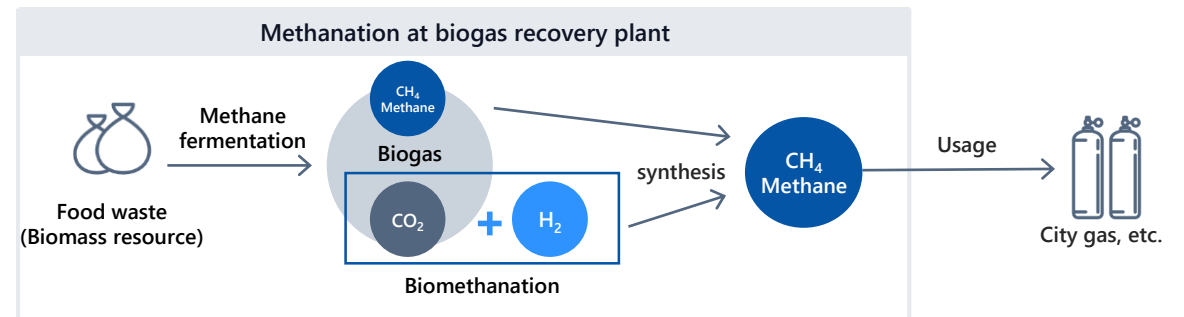
Delivered a t-CarVe® CO₂ supply system with a customer (SARA Inc. and F Bit Communications Corp.) that directly utilizes purified flue gas generated from burning woody biomass as fuel, after removing components harmful to plant growth, in a green house.

Solid carbonization

Technology for recovering CO₂ from the flue gas of waste incineration facilities as solid carbon. Can be used as a raw material for chemicals, such as carbon black.

Biomethanation

Technology that supplies hydrogen to biogas generated by methane fermentation of food waste and converts CO₂ into methane using microorganisms. Methane can be used as fuel for city gas, etc.



Aiming to develop new businesses and add value to existing businesses by actively using partnerships and digital technology.

Partnerships

Deepening collaboration with other companies and organizations to strengthen proposal capabilities and R&D.

Participation C2X

Participated in the C2X (Carbon to X) Project, an open innovation business platform for the realization of a decarbonized society. Seeking to commercialize CCUS technology through cross-industry collaboration.

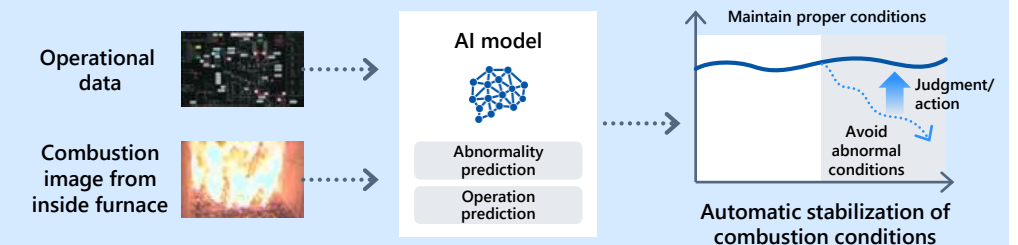


Utilizing digital technology

Using Digital technologies such as AI, IoT, and robots, save labor and add value to plant operations.

AI combustion control system Development of Intelligent Control System (ICS)

Developed a system that utilizes AI technology to predict future variability in combustion based on combustion images and operational data and perform necessary operations. Reduces manual operation by 99% and ensures stable combustion.



Information related to performance forecasts, business plans, and related topics included in this document is based on data currently available to the Company and on certain assumptions that are deemed to be reasonable. This information includes elements of risk and uncertainty.

Please note that actual performance may diverge significantly from these forecasts for a variety of reasons.

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